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Agricultural Experiment Station
University of Kentucky

**SYSTEMS OF FARMING FOR THE PURCHASE
REGION OF KENTUCKY**

BULLETIN NO. 292



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CONTENTS

| | Page |
|--|------|
| Introduction | 29 |
| Basis for conclusions | 31 |
| Characteristics of profitable systems of farming in the Purchase.... | 37 |
| Systems for 60-acre farms | 41 |
| Systems for 80-acre farms | 58 |
| Systems for 100-acre farms..... | 63 |
| Systems for 150-acre farms | 69 |
| Systems for 200-acre farms | 75 |
| Systems for 300-acre farms | 82 |
| Size of farm and net returns..... | 88 |
| Planning for profitable farming | 91 |
| Farming compared with other undertakings | 94 |
| Appendix | 96 |

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BULLETIN NO. 292

Systems of Farming for the Purchase Region of Kentucky¹

By J. B. HUTSON², W. G. FINN and Z. L. GALLOWAY

INTRODUCTION

The returns have been low on most farms in the Purchase in recent years. However, the systems followed on a few farms have resulted in good profits year after year. What is there about these more profitable systems that differs from the less profitable ones?

On some farms the systems are essentially the same as they were 15 years ago. They are built around the production of dark tobacco with no other important source of income. Such systems are not adapted to the present price situation. Due largely to a decreased demand the price of dark tobacco has not increased as much during the past 15 years as the prices of most other farm products grown in the section. With the present prices of expense items and the decreased demand for dark tobacco it is practically impossible for most farmers to get good returns year after year with tobacco as the only important source of income.

In some cases poor returns are being obtained largely because some enterprise other than tobacco is overexpanded. On some farms more dairy cows are kept than can be fed adequately and economically. On other farms more strawberries are grown than can be handled advantageously and on others still other enterprises are overexpanded. Poor pastures and low crop yields are common in the Purchase. Often not enough legumes

¹This is the second of a series of bulletins based upon a detailed farm management study undertaken in the Purchase by the Kentucky Agricultural Experiment Station and the Bureau of Agricultural Economics of the United States Department of Agriculture during 1924, 1925 and 1926. For a complete description of this study see Kentucky Agricultural Experiment Station Bulletin No. 289.

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and pastures are provided to insure good rations for livestock and maintain the fertility of the soil. Such systems, topheavy with one crop or class of livestock, or without legumes and good pastures, are unbalanced and result in high production costs and small profits.

The continual shifting from one crop or class of livestock to another is the cause of poor returns in some cases. Often a new enterprise is introduced to take the place of tobacco and continued until discouraging returns result, when it is displaced by another new enterprise and this in turn by another, and somewhere down the line tobacco is undertaken again. Radical changes of this kind are expensive and often absorb the profits.

With the more profitable systems adjustments have been made away from tobacco, in response to the decreased demand and the resulting low prices for this crop. Generally these adjustments have come about thru the gradual expansion of other enterprises. Permanent adjustments of this kind are necessary when conditions indicate that price changes are permanent. Often moderate increases and decreases back and forth in lines of production may be made profitably in response to temporary price changes. In the most profitable systems such adjustments are made on the basis of the prices that appear probable when the products are to be ready to sell, rather than on the basis of the prices prevailing at planting or breeding time, or those received during the preceding season.

Usually the crops and livestock of the more profitable systems are well balanced and properly fitted together, in that they supplement and contribute to each other. They keep up the fertility of the soil and good yields are obtained. Such feed crops and pastures are grown as are necessary to provide good rations for the livestock. Only enough livestock are kept to utilize these feeds and pasturage to good advantage.

Along with these so-called most profitable and least profitable systems are the other systems of the Purchase, each with its particular elements of strength and weakness and with which varying degrees of success are obtained. Even the most profitable systems have their strong and weak points.

In this bulletin some of these systems, each typical of those followed on a large number of farms, are described, and suggested systems that combine the strong points of the more profitable of the actual systems are presented. In each case the outstanding weaknesses of the actual systems are pointed out and the conditions to which the suggested systems are applicable described. Actual and suggested systems are shown for farms of 60, 80, 100, 150, 200 and 300 acres each.

BASIS FOR CONCLUSIONS

The purpose of presenting these actual and suggested systems is to help farmers in determining for their own farms the possibilities of the different systems that are being or that may be followed advantageously. In working out the outlines for suggested systems the most profitable actual systems have been taken as the starting point and such changes made as seem advisable in the light of results being obtained on other farms.

The acres of crops, the numbers of livestock, the expenses, receipts and net returns obtained from the actual systems during a given year are shown. Then the returns that appear probable from these systems under usual conditions in the section are calculated. The acres of crops and numbers of livestock are also shown for suggested systems and the normal or expected returns calculated. The reason for working out expected returns for the actual systems is to put all of them on the same basis, so that they may be more easily compared with each other and with the suggested systems.

The expected returns for the actual systems are based on the crop and livestock requirements and the livestock production that prevailed during the year for which actual records were obtained. They are based on normal crop yields for the particular system being considered; that is, yields that represent the average expectation for a period of years.

The suggested systems are based on normal crop and livestock requirements, yields and production as shown in Tables 1 and 2. Conclusions as to these normal data are based upon the results obtained on farms in the section during 1924, 1925 and

TABLE 1. Normal production requirements and yields for crops
(Acre basis)

| Crop | Man Labor Hrs. | Horse Work Hrs. | Other Requirements ¹ | | Yields |
|---|----------------------|-----------------------|--|--|-----------------------------------|
| | | | Kind | Amt. | |
| Corn harvest- ed from stand- ing stalk | 27 | 42 | Seed, lbs. Superphosphate, lbs. ² Equipment expense, dolls. | 7 400 .75 | 35 bus. grain |
| Corn cut by hand and husked from shock | 40 | 40 | Seed lbs. Superphosphate, lbs. ² Twine, lbs. Equipment expense, dolls. | 7 400 2 .75 | 35 bus. grain 2300 lbs. stover |
| Corn silage | 48 | 52 | Seed, lbs. Superphosphate, lbs. ² Filling costs, dolls. ³ Silo expense, dolls. Equipment expense, dolls. | 10 400 2.25 2.00 1.40 | 7 tons |
| Soybean hay | 20 | 35 | Seed, bus. Equipment expense, dolls. | 1.25 .75 | 3000 lbs. |
| Japan clover hay | 9 | 10 | Seed, lbs. Equipment expense, dolls. | 8 .50 | 2000 lbs. |
| Mixed clover hay ⁴ | 11 | 12 | Limestone, tons Seed: Red clover, lbs. Alsike, lbs. Alfalfa, lbs. Orchard grass, lbs. Equipment expense, dolls. | 2 3 1 3 5 .60 | 2500 lbs. |
| Wheat | 15 | 22 | Seed, bus. Twine, lbs. Threshing (contract), dolls. ⁵ Equipment expense, dolls. | 1.25 2 1.68 .75 | 14 bus. grain 1200 lbs. straw |
| Tobacco | 250 | 90 | Fertilizer (5-9-4), lbs. ⁶ Wood for plant beds and curing, lds. Canvas, yds. ⁷ Arsenate of lead, lbs. Building expense, dolls. Equipment expense, dolls. | 500 4 20 4 5.00 1.50 | 950 lbs. |
| Strawberries ⁸ | 270 | 135 | Plants, number Superphosphate, lbs. ² Straw (mulching), tons Crates, number Building expense, dolls. Equipment expense, dolls. Picking, dolls. Grading and crating, dolls. | 4500 400 2 140 1.00 3.00 112.00 28.00 | 140 24-qt. crates |
| Sweet- potatoes | 140 | 100 | Seed, bus. Fertilizer (2-10-12), lbs. ⁹ Manure, tons ¹⁰ Corrosive sublimate, ozs. Equipment expense, dolls. | 4 250 1.5 2 1.50 | 130 bus. |
| Tomatoes (canning) | 160 | 120 | Seed, ozs. Superphosphate, lbs. ² Canvas, yds. ⁷ Equipment expense, dolls. | 2 500 18 1.50 | 175 bus. |
| Rye (cover crop) ¹¹ | 4 | 10 | Seed, bus. Equipment expense, dolls. | 1.5 .30 | |

TABLE 1. Normal production requirements and yields for crops (Continued)
(Acre basis)

| Crop | Man Labor Hrs. | Horse Work Hrs. | Other Requirements ¹ | | Yields |
|----------------------------------|----------------------|-----------------------|---|-------------------------|--------|
| | | | Kind | Amt. | |
| Pasture mixture ¹² | 4 | 10 | Seed: Japan clover, lbs. Orchard grass, lbs. Redtop, lbs. Sweet clover, lbs. Equipment expense, dolls. | 5 5 3 4 .20 | |

¹ The building and equipment expenses include repairs, depreciation and insurance. Interest and taxes are not included. If interest and taxes were included the charges would be about twice those shown for buildings and about 50 percent larger than those shown for equipment. ² The application consists of only half this amount when the crop follows another cultivated crop on which 400 lbs. have been used. ³ For power and one man. ⁴ Man labor and horse work include applying limestone but do not include hauling limestone. ⁵ For power, machine and 2 men at 12 cents per bushel. ⁶ Home-mixed. See footnote 1, Table 3. The application consists of only 350 lbs. where tobacco follows a cultivated crop on which 400 lbs. of superphosphate have been used. ⁷ Good quality canvas usually lasts 3 years. Only one-third the amount shown is bought each year. ⁸ Requirements and yields for 3 years, 2 harvested crops. For each acre harvested half the requirements shown would be used and half the yields shown would be obtained. ⁹ Home-mixed, equivalent to 312 lbs. of 2-8-10. See footnote 2, Table 3. The application consists of only three-fourths this amount when sweetpotatoes follow a cultivated crop on which 400 lbs. of superphosphate or 500 lbs. of 5-9-4 have been used. ¹⁰ For hotbed. ¹¹ When seeded in standing corn, either with one-horse drill or broadcast and plowed in, only 2 hours of man labor and 1.5 hours of horse work will be needed. ¹² For unlimed ground omit sweet clover seed from this mixture. When seeded in small grain only one hour of man labor and no horse work will be needed.

1926, as indicated by carefully kept records, the results obtained on the Lone Oak and Mayfield experiment fields, other experimental data on crop and livestock production applicable to conditions in the area and data showing the crop yields that have been obtained on other farms in the section during recent years.³

The hours of man labor and horse work and the amounts of seed, fertilizer, feed and other materials shown for the different crop and livestock enterprises are conservative approximations. In the requirements for crops some allowance is made for breakdowns and unfavorable seasons. The requirements for livestock are large enough to take care of a reasonable amount of death losses. In calculating the man labor and horse work requirements for the different systems, amounts in addition to those required for crops and livestock are included for garden and

³ See Kentucky Experiment Station Bulletin 289, "An Economic Study of Crops and Livestock in the Purchase Region of Kentucky."

TABLE 2. Normal production requirements and production for livestock
(Head basis)

| | | Production Requirements ¹ | | | Production | |
|---|---------------------------------------|--------------------------------------|--------------------|--------------------|------------------------|--------|
| | | Combina- tion 1 ² | Combina- tion 2 | Combina- tion 3 | Kind | Amount |
| Dairy cows | Corn, bus. | 16 | 16 | 16 | Whole milk, lbs. | 5000 |
| | Bran and shorts, lbs. | 200 | 100 | — | | |
| | Cottonseed meal, lbs. | 100 | 300 | 200 | or | |
| | Soybean hay, lbs. | 1500 | — | 1800 | Butterfat, lbs. | 225 |
| | Mixed clover hay, lbs. | 1000 | 2500 | — | Skim-milk, lbs. | 4435 |
| | Corn stover, lbs. | 1000 | 1000 | — | | |
| | Silage, lbs. | — | — | 4500 | | |
| | Pasture, acres | 2 | 2 | 2 | | |
| | Man labor, hrs. | 150 | 150 | 150 | | |
| | Horse work, hrs. | 10 | 10 | 10 | | |
| | Building expense, dolls. | 3 | 3 | 3 | | |
| | Equipment expense, dolls. | 1.50 | 1.50 | 1.50 | | |
| | Miscellaneous, dolls. | 2.50 | 2.50 | 2.50 | | |
| Veal calves | Whole milk, lbs. | 480 | | | Veal, lbs. | 140 |
| | Man labor, hrs. | 5 | | | | |
| | Horse work, hrs. | 1 | | | | |
| Dairy calves (Birth to 1 year of age) | Corn, bus. | — | 1 | | | |
| | Bran and shorts, lbs. | — | 30 | | | |
| | Linseed meal, lbs. | — | 10 | | | |
| | Skim-milk, lbs. | 1200 | — | | | |
| | Whole milk, lbs. | 50 | 480 | | | |
| | Legume hay, lbs. | 200 | 200 | | | |
| | Pasture, acres | .5 | .5 | | | |
| | Man labor, hrs. | 10 | 10 | | | |
| | Horse work, hrs. | 1 | 1 | | | |
| | Building expense, dolls. | .30 | .30 | | | |
| | Miscellaneous, dolls. | .10 | .10 | | | |
| Dairy heifers ³ (1 to 2 years of age) | Corn, bus. | 2 | 2 | | | |
| | Bran and shorts, lbs. | 100 | 100 | | | |
| | Legume hay, lbs. | 1000 | 500 | | | |
| | Silage, lbs. | — | 1500 | | | |
| | Pasture, acres | 1.5 | 1.5 | | | |
| | Man labor, hrs. | 10 | 10 | | | |
| | Horse work, hrs. | 1 | 1 | | | |
| | Building expense, dolls. | .50 | .50 | | | |
| | Miscellaneous, dolls. | .20 | .20 | | | |
| Sheep, per mature head | Corn, bus. | 1.5 | 1.12 | .5 | Lambs, lbs. | 70 |
| | Oats, bus. | — | .75 | .75 | Old sheep, lbs. | 11 |
| | Bran and shorts, lbs. | — | — | 24 | Wool, lbs. | 7 |
| | Linseed oil meal, lbs. | 2.5 | — | 8 | | |
| | Silage, lbs. | — | — | 400 | | |
| | Legume hay, lbs. | 325 | 325 | 200 | | |
| | Pasture, acres | .4 | .4 | .4 | | |
| | Man labor, hrs. | 6 | 6 | 6 | | |
| | Horse work, hrs. | 1.5 | 1.5 | 1.5 | | |
| | Building expense, dolls. ⁴ | .30 | .30 | .30 | | |
| | Miscellaneous, dolls. | .02 | .02 | .02 | | |
| | | | | | | |
| Hogs, 1 sow and 8 pigs | Corn, bus. | 104 | 112 | | Pork Live weight, lbs. | 1600 |
| | Tankage, lbs. | — | 320 | | | |
| | Skim-milk, lbs. | 4400 | — | | | |
| | Pasture, acres | 1.5 | 1.5 | | | |
| | Man labor, hrs. | 80 | 80 | | | |
| | Horse work, hrs. | 16 | 16 | | | |
| | Building expense, dolls. ⁴ | 1.60 | 1.60 | | | |
| | Miscellaneous, dolls. | 2.25 | 2.25 | | | |

TABLE 2. Normal production requirements and production for livestock
(Continued)
(Head basis)

| | | Production Requirements ¹ | | | Production | |
|----------------------------------|---------------------------------------|--------------------------------------|--------------------|--------------------|------------------|--------|
| | | Combina- tion 1 ² | Combina- tion 2 | Combina- tion 3 | Kind | Amount |
| Poultry, per ma- ture bird | Corn, grain, bus. | 1.25 | 1 | 1 | Eggs, doz. | 9 |
| | Corn, ground, lbs. | — | 10 | 10 | Fryers, lbs. | 4 |
| | Bran and shorts, lbs. | — | 15 | 20 | Hens, lbs. | 4 |
| | Meat scrap, lbs. | — | 1 | 5 | | |
| | Oyster shell, lbs. | 4 | 4 | 4 | | |
| | Skim-milk, lbs. | 130 | 80 | — | | |
| | Baby chick feed, lbs. | 2 | 2 | 2 | | |
| | Pasture, acres | — | — | — | | |
| | Man labor, hrs. | 4 | 4 | 4 | | |
| | Horse work, hrs. | .3 | .3 | .3 | | |
| | Building expense, dolls. ⁴ | .20 | .20 | .20 | | |
| | Miscellaneous, dolls. | .01 | .01 | .01 | | |
| Work stock, per head | Corn, bus. | 40 | | | Hours of work | 1000 |
| | Mixed hay, lbs. | 3500 | | | | |
| | Pasture, acres | 1.25 | | | | |
| | Man labor, hrs. | 45 | | | | |
| | Horse work, hrs. | 5 | | | | |
| | Building expense, dolls. | 3.50 | | | | |
| | Equipment expense, dolls. | 2.00 | | | | |
| | Depreciation, dolls. | 7.00 | | | | |
| | Miscellaneous, dolls. | 1.75 | | | | |

¹ See footnote 1, Table 1, page 33. ² Only one of these feed combinations is used at a given time, the particular combination depending upon the kind of feeds grown and the prices of the different feeds. ³ In each system enough dairy heifers are included to keep up the herd. For each dairy heifer kept a cull cow weighing 600 lbs. would be sold. The average weight of the cull cows would probably be between 650 and 700 lbs., the difference being deducted because of death losses. ⁴ Includes equipment expense.

truck crops, work around the house and general upkeep for land, buildings, fences and equipment. Fifteen percent of the man labor and ten percent of the horse work for the crops and livestock are added for these overhead items. In each system provision is made for growing enough young stock, in addition to the sales reported, to replace the old livestock, except in the case of work stock. A normal depreciation expense is included for work stock.

The crops yields and livestock production for the suggested systems represent results that may reasonably be expected, under usual conditions in the section, from the requirements shown when the crop rotations, fertilizer, feeding and pasture

practices indicated are followed and fair to good management is applied. Many farmers get larger crop yields and higher live-stock production from requirements and practices similar to those indicated.

Normal building and equipment expenses are included for each system. These expenses include depreciation, repairs and insurance for the buildings and equipment used for the different enterprises, but do not include interest and taxes. The expenses shown are based upon the actual expenditures for repairs and insurance and estimates as to depreciation on the buildings and equipment used on the farms studied in 1924, 1925 and 1926, and similar data for other sections in which the conditions are similar to those in the Purchase.

Normal fence expenses are arrived at in a manner similar to that for buildings and equipment and used for both the actual and suggested systems, the rate varying with the size of the farm. The rates used in calculating the fence expenses are as follows:⁴

| | |
|----------------------|-------------------|
| 60-acre farms | 60 cents per acre |
| 80-acre farms | 55 cents per acre |
| 100-acre farms | 50 cents per acre |
| 150-acre farms | 45 cents per acre |
| 200-acre farms | 40 cents per acre |
| 300-acre farms | 30 cents per acre |

Expenses for auto when used for farm business are included for each system. Automobile expenses include depreciation, repairs, gas, oil and license fees.⁵ Actual expenses as shown by records and farmers' estimates for these items are included for each actual system. These records and estimates are used in arriving at rates for the suggested system which are as follows:

| | |
|----------------------|---------------|
| 60-acre farms | \$75 per farm |
| 80-acre farms | 80 per farm |
| 100-acre farms | 90 per farm |
| 150-acre farms | 105 per farm |
| 200-acre farms | 120 per farm |
| 300-acre farms | 135 per farm |

⁴If interest and taxes were included the fence expenses would be about fifty percent higher than those shown.

⁵If interest and taxes were included the automobile expenses would be about ten percent higher than those shown.

The actual cash expenses for the home orchard and garden, and sales of fruit, garden and truck products are included in the statements for the actual systems. Usually the cash sales of these products equal or exceed the cash expenses for them. In the statements for the suggested systems neither of these items is included. An estimated figure for the garden and truck products furnished the household is included for each actual and suggested system. The value of marketable livestock products furnished the household is also included for each system.

The prices used in calculating the expected returns for the actual and suggested systems are shown in Table 3. While the conclusions as to these prices were reached after a careful study of prices that have prevailed in the section in recent years it is not intended that they shall be used as price forecasts. Under the conditions existing during the period covered by this study the prices shown appear to represent reasonable relations for the area.⁶ However, in making similar calculations at any given time it will be necessary for farmers to make their own assumptions as to the prices that will be applicable to conditions on their own farms.

The crop yields, livestock production, crop and livestock requirements and prices shown in the foregoing tables are not likely to prevail during any one year. They are intended to represent average relationships considering a period of years. When they are combined in working out expected net returns for different systems the results are believed to represent reasonable expectations, under usual conditions in the section, for systems similar to those shown.

CHARACTERISTICS OF PROFITABLE SYSTEMS OF FARMING IN THE PURCHASE

A study of the possibilities of the different crops and livestock, as reported in Kentucky Experiment Station Bulletin No. 289, and the experiences of successful farmers in the section show that the systems of farming that are proving most profit-

⁶ See Kentucky Experiment Station Bulletin 289, "An Economic Study of Crops and Livestock in the Purchase Region of Kentucky."

TABLE 3. Assumed relative prices for products to be sold and expense items.

| Products to be Sold | | Expense Items | |
|------------------------------------|-------------|--|-------------|
| Item | Price | Item | Price |
| Cash crops: | | Feeds: | |
| Wheat _____ per bu. | Dolls. 1.30 | Bran and shorts per 100 lbs. | Dolls. 1.80 |
| Tobacco _____ per lb. | .10 | Cottonseed meal _____ per 100 lbs. | 2.20 |
| Strawberries per 24-qt. cr. | 3.00 | Linseed oil _____ per 100 lbs. | 3.00 |
| Sweetpotatoes _____ per bu. | .50 | Tankage _____ per 100 lbs. | 3.90 |
| Tomatoes for canning _____ per bu. | .40 | Meat scrap _____ per 100 lbs. | 4.50 |
| Livestock: | | Oyster shell _____ per 100 lbs. | 1.00 |
| Whole milk _____ per 100 lbs. | 2.10 | Baby chick _____ per 100 lbs. | 5.00 |
| Butterfat _____ per lb. | .38 | Oats _____ per bu. | .65 |
| Veal _____ per lb. | .08 | Fertilizer: | |
| Cull cows _____ per lb. | .04 | Superphosphate per 100 lbs. | 1.10 |
| Lambs _____ per lb. | .10 | 5-9-4 (tobacco) ¹ per 100 lbs. | 2.00 |
| Wool _____ per lb. | .36 | 2-10-12 (sweet-potatoes) ² _____ per 100 lbs. | 1.75 |
| Cull ewes _____ per lb. | .03 | Seeds and plants: | |
| Hogs _____ per 100 lbs. | 8.75 | Soybeans _____ per bu. | 2.40 |
| Eggs _____ per doz. | .25 | Japan clover _____ per lb. | .10 |
| Fryers _____ per lb. | .26 | Red clover _____ per lb. | .30 |
| Hens _____ per lb. | .18 | Alsike clover _____ per lb. | .25 |
| | | Alfalfa _____ per lb. | .23 |
| | | Sweet clover _____ per lb. | .18 |
| | | Orchard grass _____ per lb. | .18 |
| | | Redtop _____ per lb. | .20 |
| | | Rye _____ per bu. | 1.40 |
| | | Strawberry plants per 1000 | 3.50 |
| | | Tomato seed _____ per oz. | .25 |
| | | Miscellaneous: | |
| | | Twine _____ per lb. | .16 |
| | | Canvas _____ per yd. | .05 |
| | | Arsenate of lead _____ per lb. | .25 |
| | | Corrosive sublimate _____ per oz. | .15 |
| | | Strawberry crates _____ per cr. | .34 |
| | | Baling hay _____ per ton | 2.40 |
| | | Limestone ³ _____ per ton | 3.25 |

¹This home-mixed fertilizer containing approximately 5% nitrogen, 9% phosphoric acid and 4% potash, consists of the following:

| | | |
|-------------------------|--------------------|---------|
| Superphosphate _____ | 1150 lbs. @ \$1.10 | \$12.65 |
| Nitrate of soda _____ | 675 lbs. @ 3.50 | 23.62 |
| Muriate of potash _____ | 175 lbs. @ 2.50 | 4.38 |
| | 2000 lbs. | \$40.65 |

²This home-mixed fertilizer containing approximately 2% of nitrogen, 10% of phosphoric acid and 12% of potash, consists of the following:

| | | |
|-------------------------|--------------------|---------|
| Superphosphate _____ | 1240 lbs. @ \$1.10 | \$13.64 |
| Nitrate of soda _____ | 265 lbs. @ 3.50 | 9.28 |
| Muriate of potash _____ | 495 lbs. @ 2.50 | 12.38 |
| | 2000 | \$35.30 |

³Includes cost of limestone at the unloading point and \$1.00 per ton for hauling.

able and that are likely to continue most profitable generally have several of the following characteristics:

1. Two or more important sources of income, including at least one cash crop, for which the section has advantages as compared with other enterprises.
2. One or more minor sources of income.
3. All livestock products, truck crops and fruit adapted to the section that are needed in the household produced on the farm.
4. A crop and livestock program that will maintain or improve the fertility of the soil.
5. Crops and livestock so balanced as to utilize the legumes, pastures and non-marketable by-products to good advantage and provide good rations for the livestock.
6. No more mature work stock than are needed to provide the necessary horse work.
7. Crops and livestock such that the man labor and horse work requirements are well distributed thruout the year.
8. Practices in growing crops and handling livestock such that yields and production approach recognized standards.

Some of the systems now being followed have more of these characteristics than others. Each of them appears to be important for profits. Provision is made for all of them in outlining each of the suggested systems presented in the sections that follow.

Important sources of income: A small acreage of tobacco is included in practically every suggested system and strawberries are included in a considerable number of them. On some of the larger farms the wheat acreage is sufficient to provide an important source of income. Each system has dairy cattle and a few of them poultry as important sources of income. These are crops and livestock for which the Purchase has superior advantages as compared with other enterprises. Three or more of them are included as major sources of income in each suggested system.

Minor sources of income: Hogs are included as a minor source of income in most of the suggested systems. Poultry is a minor source of income in the systems in which it is not a major source. Sweetpotatoes, tomatoes, wheat and sheep are minor sources in some systems. Two or more of these are included as minor sources in each suggested system.

Products used in the home: Each suggested system provides for all the dairy products, pork and poultry products needed in the home. In addition an abundance of garden, truck and fruit products is provided for.

Soil fertility: Each suggested system provides for the use of limestone, superphosphate and manure. Crop rotations, legumes, cover crops and pastures are included. The crop and livestock program for each suggested system will maintain or improve the fertility of the soil so that good crop yields and economical crop production are possible.

Balance between crops and livestock: The prices of feed crops are such in the Purchase that few farmers can profitably grow feed crops for sale. Except in the case of exceptional markets the prices of livestock products are such that few farmers can afford to buy any considerable quantity of feed. The crops and livestock of the suggested systems are so balanced that good farm-grown rations are provided for the livestock, and practically all crop and livestock by-products are utilized to good advantage. Dairy cattle utilize such feeds as corn stover and the legumes and pastures needed for the maintenance of soil fertility. Hogs and poultry utilize the skim-milk.

Work stock: The profits on many farms in the Purchase are largely absorbed by surplus work stock. In the suggested systems only enough work stock are included to care for the crops and the other livestock.

Man labor and horse work distribution: The peak loads of man labor and horse work during the growing season, particularly in planting and harvesting, determine the acres of crops that can be handled advantageously. Usually a larger number of acres of cash crops can be handled if more than one kind is grown. For example, 3 acres of strawberries and 3 acres of tobacco can be handled about as easily as 4 acres of tobacco. The heaviest requirements for livestock are during the winter season, consequently a larger business can be handled if cash crops and livestock are combined. In each of the suggested systems the cash crops, feed crops and livestock included give a good distribution of man labor and horse work requirements thruout the year.

Good practices: The crops and livestock of the suggested systems are combined so as to permit the feeding of good home-grown rations to the livestock and to permit timely operations in planting and cultivating crops. The kinds and amounts of fertilizer are provided that result in good crop yields. In each case ample provision is made for good pastures so that economical livestock production may be obtained.

SYSTEMS FOR 60-ACRE FARMS

The acres of crops and numbers of livestock, hours of man labor and horse work and expected returns for systems actually followed on three farms of approximately 60 acres each and for three suggested systems for 60-acre farms are shown in Table 4. Each actual system is typical of those being followed on a large number of the smaller farms in the section.

In arriving at the expected returns a detailed farm budget, showing the hours of man labor and horse work and other costs and the production for each crop, and the hours of man labor and horse work, the amounts of home-grown and purchased feeds and other costs and production for each class of livestock, has been carefully worked out for each system. (See Table 5 for a complete budget). As explained in a preceding section, normal requirements and production and assumed relative prices were used in working out these budgets. The expected net returns shown in Table 4, and those shown in the similar tables that follow, are believed to be near enough those that will actually be obtained from systems similar to those indicated, considering a period of years, to permit a fairly accurate appraisal of each system.

Under usual conditions in the section the chances appear about equal for a net return of approximately \$550 from systems similar to actual system 1, \$700 from systems similar to actual system 2, \$1025 from systems similar to actual system 3, \$1200 from systems similar to suggested system 1, \$1225 from systems similar to suggested system 2 and \$1450 from systems similar to suggested system 3 (See Table 4).

TABLE 4. Summary of three actual and three suggested systems¹
(60-acre farms)

| | Actual System 1 | Actual System 2 | Actual System 3 | Suggested System 1 | Suggested System 2 | Suggested System 3 |
|---------------------------------------|-----------------------|-----------------------|-----------------------|--------------------------|--------------------------|--------------------------|
| Acres | 58 | 54 | 65 | 60 | 60 | 60 |
| Value of farm, dolls. ² | 2400 | 2700 | 3075 | 3000 | 3500 | 3500 |
| Livestock, equipment and feed, dolls. | 742 | 675 | 1797 | 1600 | 1600 | 1450 |
| Number of men | 1 | 1 | 1 | 1 ³ | 1 ³ | 1 ³ |
| Number of work stock | 4 | 3 | 3 | 2 | 2 | 2 |
| Acres in crops: | | | | | | |
| Corn for grain | 18 | 13 | 15 | 12 | 10 | 12 |
| Cowpea or soybean hay | 5 | 2 | | 1 | | |
| Mixed clover hay | | | 15 | 8 | 10 | 7.5 |
| Japan clover hay | | 12 | 7 ⁴ | | 1 | |
| Wheat | | | | 8 | | 6 |
| Rye, cover crop and pasture | | | | | 1 | 1.5 |
| Tobacco | 4 | 2 | 4 | 3 | 2 | 3 |
| Strawberries (harvested) | | 2 | 1 | | 2 | 3 |
| Strawberries (young) | | 1 | .5 | | 1 | 1.5 |
| Other truck | 1 | .25 | .5 | 2 | 2 | 2 |
| Pasture | 21 | 9 | 21 | 16 | 22 | 15 |
| Hours man labor on crops | 1435 | 917 | 1890 | 1354 | 1327 | 1741 |
| Hours horse work on crops | 1190 | 834 | 1445 | 1073 | 960 | 1216 |
| Number of livestock: | | | | | | |
| Dairy cows | 2 | 1 | 4 | 6 | 8 | 5 |
| Bull | | | 1 | | | |
| Dairy heifers (1 to 2 yrs.) | | 1 | 1 | 2 | 2 | 2 |
| Dairy calves (under 1 yr.) | | 1 | 2 | 2 | 2 | 2 |
| Veals | | | | 3 | 5 | 2 |
| Sows | | | 2 | 1 | | 1 |
| Other hogs | 3 | 4 | 20 | 8 | 2 | 8 |
| Poultry | 50 | 68 | 64 | 100 | 90 | 125 |
| Hours man labor on livestock | 696 | 617 | 1441 | 1525 | 1735 | 1470 |
| Hours horse work on livestock | 58 | 65 | 130 | 123 | 130 | 120 |
| Farm receipts, dolls. | 449 | 1109 | 1743 | 1435 | 1706 | 1958 |
| Products used in household, dolls. | 231 | 351 | 382 | 324 | 326 | 324 |
| Farm expenses, dolls. | 273 | 408 | 769 | 555 | 812 | 832 |
| Net return: | | | | | | |
| Actual, dolls. | 407 | 1052 | 1356 | | 1220 | 1450 |
| Expected, dolls. | 554 | 704 | 1019 | 1204 | | |

¹ A detailed budget for suggested system 3 is shown on pages 51, 52 and 53. Detailed budget for suggested systems 1 and 2 are shown in the appendix on pages 96 to 104. ² Excluding value of the residence. ³ An additional man will be required for 1 to 1.5 months during the crop growing season. ⁴ Oat hay.

Each of these figures represents the excess of sales over farm expenses, plus the value of the products furnished the household. No deductions are made for man labor and management, or interest and taxes on the investment in land, buildings, livestock, machinery and other equipment, and consequently the expected net returns are the amounts left for labor and management and return on investment.

Expenses for maintaining the necessary work stock are included along with the expenses for other livestock. The total

horse work requirements are about the same for the suggested systems as for the actual systems. However, the better balance between the different enterprises in the suggested systems makes it possible to do the work with fewer horses.

The seasonal distribution of man labor and horse work for each of these systems is shown in Figures 1 and 2. Fewer hours of man labor are used with actual systems 1 and 2 than are

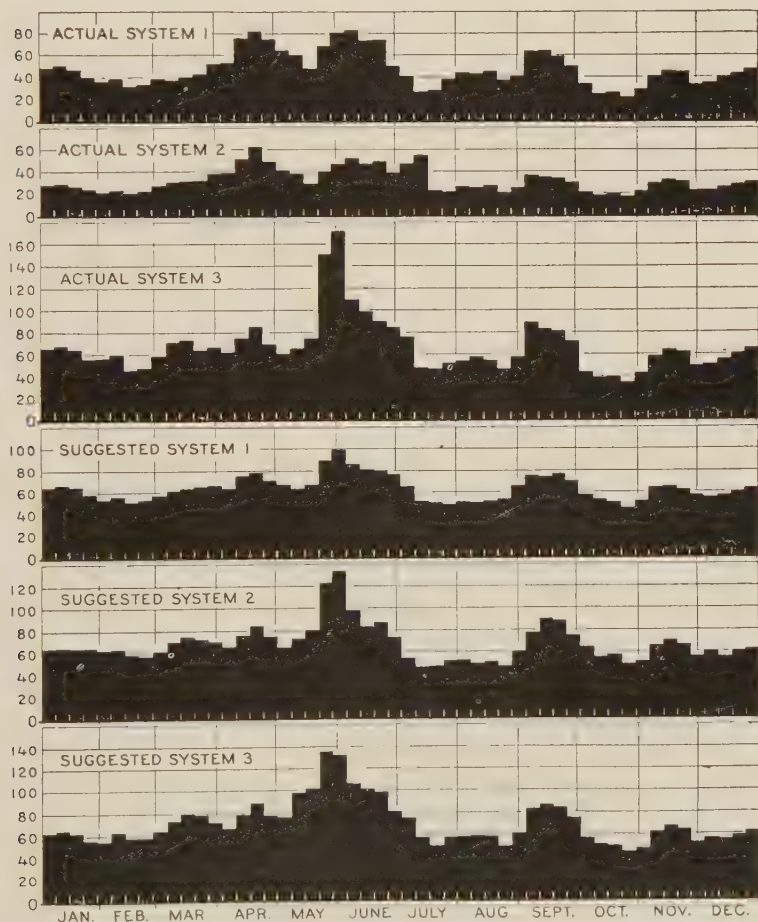


Fig. 1. Seasonal distribution of man labor for actual and suggested systems for 60-acre farms.

required for either suggested system, but more man labor is used with actual system 3 than is required for either suggested system. If the work were carefully planned one man and two horses could do the work on any of the systems. The crops and live-stock of the suggested systems are so combined that the man labor and horse work requirements are more evenly distributed

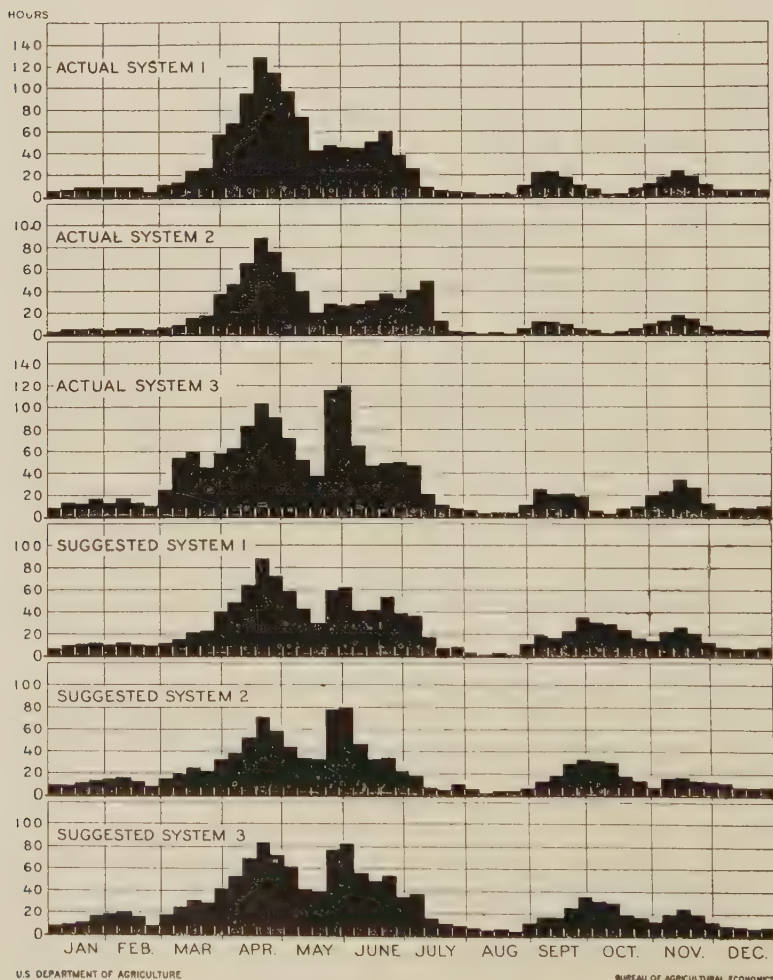


Fig. 2. Seasonal distribution of horse work for actual and suggested systems for 60-acre farms.

thruout the year than is the case with the actual systems. In the sections which follow some of the outstanding weaknesses of these actual systems are pointed out and the conditions to which the suggested systems are applicable are described.

Actual System 1

The expected net return from this system is approximately \$550. It provides but one important source of income, tobacco. A small amount of butterfat is sold and there are a few sales of poultry products and miscellaneous crops. The total cash income from all sources is less than \$500 per year, a volume of sales much too small for a sixty-acre farm.

The feed crops have not been properly selected and there is not a good balance between them. The acreage of corn is too large and the acreage of legumes too small. Almost half of the tillable land is cultivated in corn and tobacco. With such a cropping system the productivity of the soil is soon exhausted. At present corn yields are less than twenty bushels per acre, cowpea hay yields only one-half ton per acre and tobacco yields just slightly above 700 pounds per acre.

The crops grown do not provide good rations for the livestock and it is necessary to purchase considerable quantities of protein feeds to supplement those grown. A larger acreage of legumes is needed. The pasture land is poorly utilized and during parts of the year the scanty growth is not enough to supply the livestock with feed. No late fall or early spring pasturage is available.

There is a surplus of work stock on the farm. With the use of mixed clovers for hay and pasture, and by doing some of the plowing in the fall, the field work could be managed so that two horses could furnish all the necessary horse work. A reduction in the number of work stock, along with the improvements in the cropping program, would make it possible to add two or three dairy cows and perhaps at the same time increase the number of poultry.

It probably would be advantageous to add to the cropping system another cash crop besides tobacco. Strawberries and

tobacco combine well together and generally a system of farming with a combination of these crops has advantages over a system which includes only one of them. On all the smaller farms of the Purchase such intensive crops as tobacco, strawberries, sweetpotatoes and tomatoes have a very important place.

Actual System 2

The expected net return from this system is approximately \$700. It provides two important sources of income, tobacco and strawberries, and one minor source, poultry.

The crops and livestock provide productive employment for only a part of the year. The cropping program is poorly arranged. Of the forty-three acres of tillable land on the farm thirty-four acres are in crops, and no perennial legumes are included in the rotation. This makes it difficult to maintain the fertility of the soil. Corn yields are only fifteen bushels per acre, hay yields are only about one-half ton per acre and tobacco yields only 650 pounds per acre. With the use of mixed clovers for hay and pasture and by keeping more of the land in pasture the productivity of the soil could be greatly improved and the yields of all crops materially increased. Such changes in the cropping system would make it possible to produce more feed and better feed for the livestock. If at the same time one of the present number of work stock could be eliminated sufficient feed would be made available to permit considerable expansion in both dairy cows and poultry. Since dairy cows consume relatively large quantities of hay and pasture to good advantage the greatest increase probably should be made in the dairy enterprise.

After substituting the cowpeas with mixed clover and with more livestock in the system the man labor and horse work requirements would be more evenly distributed. There would not be so much land to prepare and plant each year and the additional livestock would add greatly to the amount of productive work to be done during the winter.

Actual System 3

The expected net return from this system is approximately \$1025. It provides four important sources of income, tobacco, strawberries, dairy cows and hogs, and one minor source, poultry.

For this size of farm a more profitable combination of livestock probably could be obtained by reducing the number of hogs and increasing the number of poultry. To conduct either of these enterprises it requires relatively large quantities of corn and skim-milk, and since on a given area of land a larger volume of production can be obtained with poultry than with hogs it is usually advisable on most of the smaller farms to give greater emphasis to poultry.

The feed crops do not provide good rations for the livestock. During certain seasons of the year the pastures are not sufficient to provide for the needs of the livestock. Redtop and Japan clover furnish all the available pasturage. With the introduction of perennial clovers into the seeding mixture an abundance of pasturage could be made available thruout the growing season. This would make possible more economical feeding of the livestock and at the same time permit greater production to be obtained from them.

In spite of its faults this system is much superior to the majority of systems that are followed on the smaller farms of the area at present. For a sixty-acre farm the volume of production is good. The man labor and horse work requirements are fairly well distributed thruout the year, much better than in either actual system 1 or 2, since the livestock provide more productive employment during the winter season.

Suggested System 1

The expected net return from this system is approximately \$1200. It provides three important sources of income, tobacco, dairy cows and poultry, and two minor sources, wheat and hogs. The cropping program includes a 6-year rotation in which six 8-acre fields are used. One field is planted to corn. The following year 4 acres of corn, 3 acres of tobacco and 1 acre of soybean

hay are grown on this field. Wheat is seeded in the fall of the second year, followed by mixed clover and grass which is cut for hay one year and pastured 2 years. The field is planted to corn again the seventh year. Superphosphate is applied on corn at the rate of 400 pounds per acre the first year and 200 pounds per acre the second year. A complete fertilizer is used on tobacco at the rate of 350 pounds per acre and ground limestone on wheat at the rate of 2 tons per acre.

Enough livestock is kept to use the feed crops. The dairy cows are fed corn, mixed clover and soybean hay, corn stover, bran and shorts, and cottonseed meal. Whole milk is sold. Tankage is bought to balance the ration for hogs, and meat scrap and bran and shorts are bought to balance the ration for the poultry. In this and in other systems in which whole milk is sold and hogs or poultry kept the net returns and labor requirements are not greatly changed if butterfat is sold and the skim-milk used to balance the grain ration for the hogs and poultry.

The system is particularly adapted to farms so far away from the market that truck crops, strawberries or other fruit crops cannot be marketed economically. It would probably have advantages over suggested systems 2 and 3 for tenants who are not definitely located, or owner operators who are consistently successful in growing high-quality tobacco.

Suggested System 2

The expected net return from this system is approximately \$1225. It provides four important sources of income, tobacco, strawberries, dairy cows and poultry. The cropping program includes two rotations. Four 10-acre fields are required for the major rotation. Corn is grown on one field, followed by rye, which is followed by mixed clovers and grass. The rye and mixed clovers and grass are pastured the second year, and the mixed clovers and grass are cut for hay the third year and pastured the fourth year. The field is planted to corn again the fifth year. Superphosphate is applied on corn at the rate

of 400 pounds per acre and ground limestone on rye at the rate of 2 tons per acre.

Four fields of 2 acres each are required for the minor rotation. Tobacco is grown on one field, followed by rye cover crop. The following spring one-half of this field is seeded to Japan clover and the other half planted to strawberries. Each of these crops remains three years. Japan clover is cut for hay one year and pastured the other two years.⁷ Following the strawberries and Japan clover the field is planted to tobacco again the fifth year. The strawberries and Japan clover are alternated in succeeding rounds of the rotation. A complete fertilizer is applied on tobacco at the rate of 500 pounds per acre and superphosphate on strawberries at the rate of 200 pounds per acre. The feeds for the livestock are similar to those indicated under suggested system 1.

This system is particularly adapted to farms within ten miles of a strawberry shipping point. For farms near a market for sweetpotatoes or other truck crops one of these crops may be substituted for strawberries, the system remaining in other respects as outlined.

Suggested System 3

The expected net return from this system is approximately \$1450. It provides four important sources of income, tobacco, strawberries, dairy cows and poultry, and two minor sources, wheat and hogs. A smaller proportion of the income is obtained from dairy cows and a larger proportion from the two cash crops, tobacco and strawberries, than in either suggested system 1 or suggested system 2.

The cropping program includes two rotations. Six 6-acre fields are required for the major rotation. The crops in this rotation are corn, two years; wheat, one year; mixed clover hay, one year; and mixed clovers and grass pasture, two years. Superphosphate is applied on corn at the rate of 400 pounds per acre the first year, 200 pounds per acre the second year, and ground limestone on wheat at the rate of 2 tons per acre. Four

⁷ A temporary fence would be required in this case and in similar cases referred to later in this bulletin.

3-acre fields are required for the minor rotation. Tobacco is grown on one field, followed by a rye cover crop. The following year one-half of this field is planted to strawberries and one-half is seeded to mixed clovers and grass. Each of these crops remains 3-years, the mixed clovers and grass being cut for hay one year and pastured two years. Both parts of the field are planted to tobacco again the fifth year, followed by strawberries and mixed clovers and grass. The strawberries and mixed clovers and grass are alternated in succeeding rounds of the rotation. A complete fertilizer is used on tobacco at the rate of 500 pounds per acre and superphosphate on strawberries at the rate of 200 pounds per acre. The feeds for the livestock are similar to those indicated under suggested systems 1 and 2.

This system is particularly adapted to farms near a strawberry market that are not especially suited to growing feed crops, or for farmers more especially fitted for growing strawberries or tobacco than for handling dairy cattle. On farms favorably located for growing sweetpotatoes or other truck crops, as mentioned under suggested system 2, one or more of these crops may be substituted for strawberries. Farmers with special aptitudes for growing strawberries and sweetpotatoes or other truck crops, and located favorably for marketing these crops, may find it advisable to displace all the tobacco with other cash crops.

Details of Suggested System 3

Of the systems outlined for 60-acre farms, suggested system 3 shows the largest net returns. A detailed budget for this system is shown in Table 5. The data shown in Tables 1, 2 and 3 have been used in the preparation of this budget. For example, the requirements and production for 3 acres of tobacco, as shown in Section A and B, were obtained by multiplying the different items for tobacco in Table 1 by three. The requirements and production for 5 dairy cows, as shown in Sections C and D, were obtained by multiplying the different items for dairy cows in Table 2 by five. In the budget shown feed combination I was used for dairy cows. The cost of expense items

TABLE 5. Budget for suggested system 3 (60-acre farm—1 man, 2 horses)
Section A. Crops: Acreage, production and disposition.

| Crop | Acres | Production | Farm Use | | Sales | |
|--------------------|-------|------------|------------|----------|-----------|--------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 3 | 2850 lbs. | | | 2850 lbs. | \$285 |
| Strawberries (old) | 3 | 210 crs. | | | 210 crs. | 630 |
| Strawberries (new) | 1.5 | | | | | |
| Corn, grain | 12 | 420 bus. | 418.5 bus. | 1.5 bus. | | |
| Corn, stover | 6 | 13800 lbs. | 13800 lbs. | | | |
| Wheat | 6 | 84 bus. | | 7.5 bus. | 76.5 bus. | 99 |
| Mixed clover hay | 7.5 | 18750 lbs. | 18750 lbs. | | | |
| Clover and grass | 13.5 | Pasture | Pasture | | | |
| Rye (and clovers) | 1.5 | Pasture | Pasture | | | |
| Rye (cover crop) | 1.5 | | | | | |
| Orchard and truck | 2 | | | | | |
| Lots | 4 | | | | | |
| Woodland | 6 | | | | | |
| Total | | | | | | \$1014 |

TABLE 5. Budget for suggested system 3 (60-acre farm—1 man, 2 horses)
(Continued)

Section B. Crops: Man labor, horse work and other requirements.

| Crop | Man Hrs. | Horse Hrs. | Seed and Plants | | Fertilizer and Other Materials | | |
|------------------|----------|------------|----------------------|-------|--------------------------------|-----------|-------|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 750 | 270 | | | Fert. (5-9-4) | 1500 lbs. | \$30 |
| | | | | | Canvas | 20 yds. | 1 |
| | | | | | Ars. of lead | 12 lbs. | 3 |
| | | | | | Bldg. exp. | | 15 |
| | | | | | Equipment | | 4 |
| | | | | | Superphosphate | 300 lbs. | 3 |
| | | | | | Straw | 3 T. | Farm |
| | | | | | Crates | 210 | 71 |
| Strawberries | 405 | 202 | 6750 plants | \$24 | Contract picking | 210 crs. | 168 |
| | | | | | Grading & crating | 210 crs. | 42 |
| | | | | | Bldg. exp. | | 3 |
| | | | | | Equipment | | 9 |
| Corn | 402 | 492 | 1.5 bus. | Farm | Superphosphate | 3600 lbs. | 40 |
| | | | | | Twine | 12 lbs. | 2 |
| | | | | | Equipment | | 9 |
| | | | | | Contract threshing | 84 bus. | 10 |
| Wheat | 90 | 132 | 7.5 bus. | Farm | Twine | 12 lbs. | 2 |
| | | | | | Equipment | | 4 |
| | | | 22 lbs. Red cl. | 7 | | | |
| | | | 8 lbs. Alsike | 2 | | | |
| | | | 22 lbs. Alfalfa | 5 | Limestone | 15 T. | 49 |
| Mixed clover hay | 82 | 90 | 38 lbs. Orch'd grass | 7 | Equipment | | 4 |
| Rye (seeding) | 12 | 30 | 4.5 bus. | 6 | Equipment | | 1 |
| Total | 1741 | 1216 | | \$51 | Fertilizer and materials | | \$421 |
| | | | | | Building expense | | 18 |
| | | | | | Equipment expense | | 31 |

TABLE 5. Budget for suggested system 3 (60-acre farm—1 man, 2 horses)
(Continued)

Section C. Livestock: Number, and man labor, horse work, feed and material requirements.

| Livestock | Number | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | Value |
|------------------|--------|-------------|---------------|------------------|------------|--------------------------------------|-----------|-------|
| | | | | Kind | Amount | Kind | Amount | |
| Dairy cows | 5 | 750 | 50 | Corn | 80 lbs. | Bran and shorts | 500 lbs. | \$9 |
| | | | | Mixed hay | 12500 lbs. | Cottonseed meal | 1500 lbs. | 33 |
| | | | | Corn stover | 5000 lbs. | Bldg. exp. | | 15 |
| | | | | | | Equip. exp. | | 8 |
| Veals | 2 | 10 | 2 | Whole milk | 960 lbs. | Miscellaneous | | 12 |
| Dairy calves | 2 | 20 | 2 | Mixed hay | 400 lbs. | | | |
| | | | | Skim-milk | 2400 lbs. | Bldg. & misc. | | 1 |
| | | | | Whole milk | 100 lbs. | | | |
| Dairy heifers | 2 | 20 | 2 | Corn | 4 bus. | Bran and shorts | 200 lbs. | 4 |
| | | | | Mixed hay | 1100 lbs. | Bldg. & misc. | | 1 |
| | | | | Corn stover | 1800 lbs. | | | |
| Sow and pigs | 1 | 80 | 16 | Corn | 104 bus. | Equip. exp. | | 2 |
| | | | | Skim-milk | 4400 lbs. | Miscellaneous | | 2 |
| | | | | | | | | |
| Poultry | 125 | 500 | 38 | | | Bran and shorts | 1875 lbs. | 34 |
| | | | | | | Meat scrap | 125 lbs. | 6 |
| | | | | Corn | 146 bus. | Baby chick feed | 250 lbs. | 13 |
| | | | | Skim-milk | 16000 lbs. | Oyster shell | 500 lbs. | 5 |
| | | | | | | Bldg. exp. | | 25 |
| | | | | | | Miscellaneous | | 1 |
| | | | | | | | | |
| Work stock | 2 | 96 | 16 | Corn | 80 bus. | Bldg. exp. | | 7 |
| | | | | Mixed hay | 3000 lbs. | Equip. exp. | | 4 |
| | | | | Corn stover | 3000 lbs. | Equipment depreciation | | 14 |
| | | | | | | Miscellaneous | | 4 |
| Total | | 1470 | 120 | Corn | 414 bus. | Feeds | | \$104 |
| | | | | Whole milk | 1060 lbs. | Building expense | | 48 |
| | | | | Skim-milk | 16800 lbs. | Equipment expense | | 14 |
| | | | | Mixed hay | 19500 lbs. | Work stock depreciation | | 14 |
| | | | | Corn stover | 9800 lbs. | Miscellaneous | | 20 |

and value of production are obtained by multiplying the quantities obtained, as indicated above, by the prices shown in Table 3.

The crop rotations used in suggested system 3 are shown in Figures 3 and 4. The seasonal distribution of man labor and horse work for the different crop and livestock enterprises are shown in Figures 5 and 6.

TABLE 5. Budget for suggested system 3 (60-acre farm—1 man, 2 horses)
(Continued)

Section D. Livestock: Production and disposition of products.

| Kind of Livestock and Product | Production | Disposal | | | | |
|-------------------------------|------------|----------------------|--------------|-------|-----------------------|-------|
| | | Fed to Livestock | Used in Home | | Sales | |
| | | | Amount | Value | Amount | Value |
| Dairy cows | | | (365 gal.) | | | |
| Whole milk | 25000 lbs. | 1060 lbs. | 3140 lbs. | \$66 | 936 lbs. ¹ | \$356 |
| Veals | 280 lbs. | | | | 280 lbs. | 22 |
| Cull cows | 2 cows | | | | 2 cows | 48 |
| Pork | 1600 lbs. | | 500 lbs. | 44 | 1100 lbs. | 96 |
| Poultry | | | | | | |
| Eggs | 1125 doz. | 62 doz. ² | 150 doz. | 38 | 913 doz. | 228 |
| Fryers | 500 lbs. | | 100 lbs. | 26 | 400 lbs. | 104 |
| Hens | 500 lbs. | | | | 500 lbs. | 90 |
| Total | | | | \$174 | | \$944 |

¹ Butterfat, sold in cream. ² Eggs used for setting.TABLE 5. Budget for suggested system 3 (60-acre farm—1 man, 2 horses)
(Continued)

Section E. Summary of receipts and expenses.

| Incomes | | Expenses | |
|--|--------|--------------------------|-------|
| Crops (Section A) | \$1014 | Crops (Section B) | |
| Livestock and livestock products (Section D) | 944 | Seeds and plants | \$51 |
| Livestock products used in home (Section D) | 174 | Fertilizer and materials | 421 |
| Garden and truck | 150 | Building expense | 18 |
| | | Equipment expense | 31 |
| Total | \$2282 | Livestock (Section C) | |
| | | Feeds purchased | 104 |
| | | Building expense | 48 |
| | | Equipment expense | 14 |
| | | Work stock depreciation | 14 |
| | | Miscellaneous | 20 |
| Net return | \$1450 | General Farm | |
| | | Fence expense | 36 |
| | | Automobile expense | 75 |
| | | Total | \$832 |

| | Field 1 6 acres | Field 2 6 acres | Field 3 6 acres | Field 4 6 acres | Field 5 6 acres | Field 6 6 acres |
|------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| 1930 | Corn | Mixed clover and grass pasture | Mixed clover and grass pasture | Mixed clover hay | Wheat (Mixed clover) | Corn (Wheat) |
| 1931 | Corn (Wheat) | Corn | Mixed clover and grass pasture | Mixed clover and grass pasture | Mixed clover hay | Wheat (Mixed clover) |
| 1932 | Wheat (Mixed clover) | Corn (Wheat) | Corn | Mixed clover and grass pasture | Mixed clover and grass pasture | Mixed clover hay |
| 1933 | Mixed clover hay | Wheat (Mixed clover) | Corn (Wheat) | Corn | Mixed clover and grass pasture | Mixed clover and grass pasture |
| 1934 | Mixed clover and grass pasture | Mixed clover hay | Wheat (Mixed clover) | Corn (Wheat) | Corn | Mixed clover and grass pasture |
| 1935 | Mixed clover and grass pasture | Mixed clover and grass pasture | Mixed clover hay | Wheat (Mixed clover) | Corn (Wheat) | Corn |
| 1936 | Corn | Mixed clover and grass pasture | Mixed clover and grass pasture | Mixed clover hay | Wheat (Mixed clover) | Corn (Wheat) |

Fig. 3. Major crop rotation for suggested system 3.

| | Field 7 3 acres | | Field 8 3 acres | | Field 9 3 acres | | Field 10 3 acres | |
|------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1930 | Tobacco (Rye) | | Clover and grass | Straw-berries | Mixed clover hay | Straw-berries | Rye and mixed clovers | Straw-berries |
| 1931 | Straw-berries | Rye and mixed clovers | Tobacco (Rye) | | Clover and grass | Straw-berries | Mixed clover hay | Straw-berries |
| 1932 | Straw-berries | Mixed clover hay | Straw-berries | Rye and mixed clovers | Tobacco (Rye) | | Clover and grass | Straw-berries |
| 1933 | Straw-berries | Clover and grass | Straw-berries | Mixed clover hay | Straw-berries | Rye and mixed clovers | Tobacco (Rye) | |
| 1934 | Tobacco (Rye) | | Straw-berries | Clover and grass | Straw-berries | Mixed clover hay | Straw-berries | Rye and mixed clovers |
| 1935 | Rye and mixed clovers | Straw-berries | Tobacco (Rye) | | Straw-berries | Clover and grass | Straw-berries | Mixed clover hay |
| 1936 | Mixed clover hay | Straw-berries | Rye and mixed clovers | Straw-berries | Tobacco (Rye) | | Straw-berries | Clover and grass |
| 1937 | Clover and grass | Straw-berries | Mixed clover hay | Straw-berries | Rye and mixed clovers | Straw-berries | Tobacco (Rye) | |
| 1938 | Tobacco (Rye) | | Clover and grass | Straw-berries | Mixed clover hay | Straw-berries | Rye and mixed clovers | Straw-berries |
| 1939 | Straw-berries | Rye and mixed clovers | Tobacco (Rye) | | Clover and grass | Straw-berries | Mixed clover hay | Straw-berries |

Fig. 4. Minor crop rotation for suggested system 3.

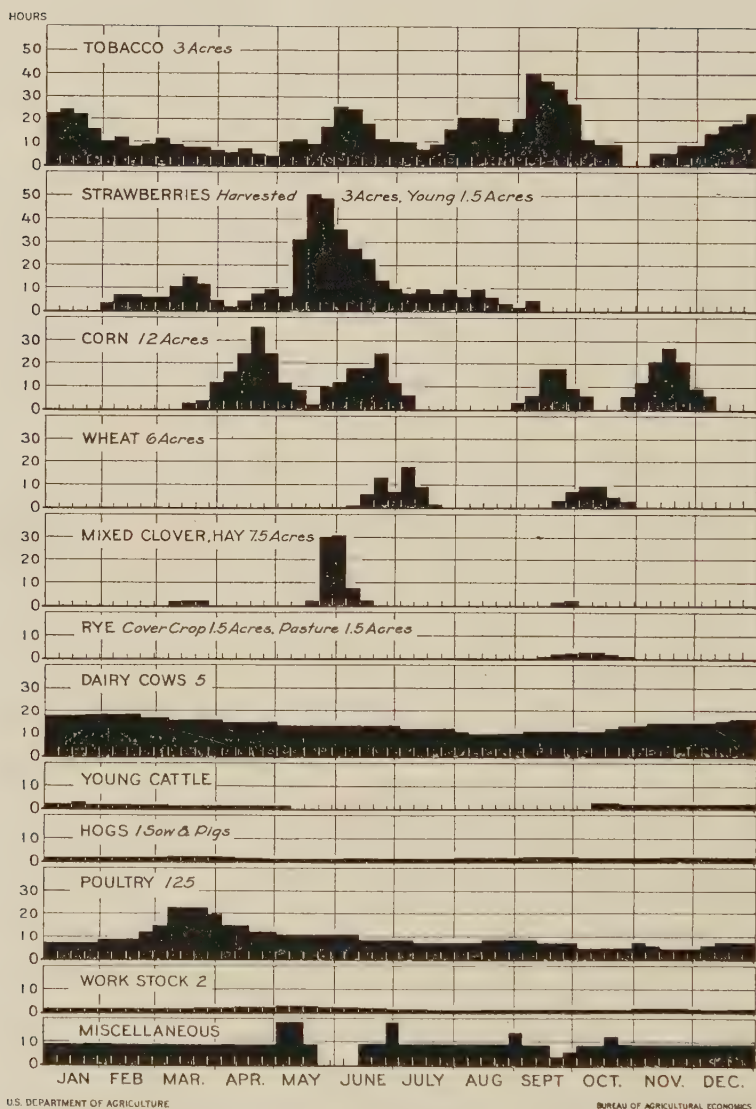


Fig. 5. Seasonal distribution of man labor by crop and livestock enterprises for suggested system 3.

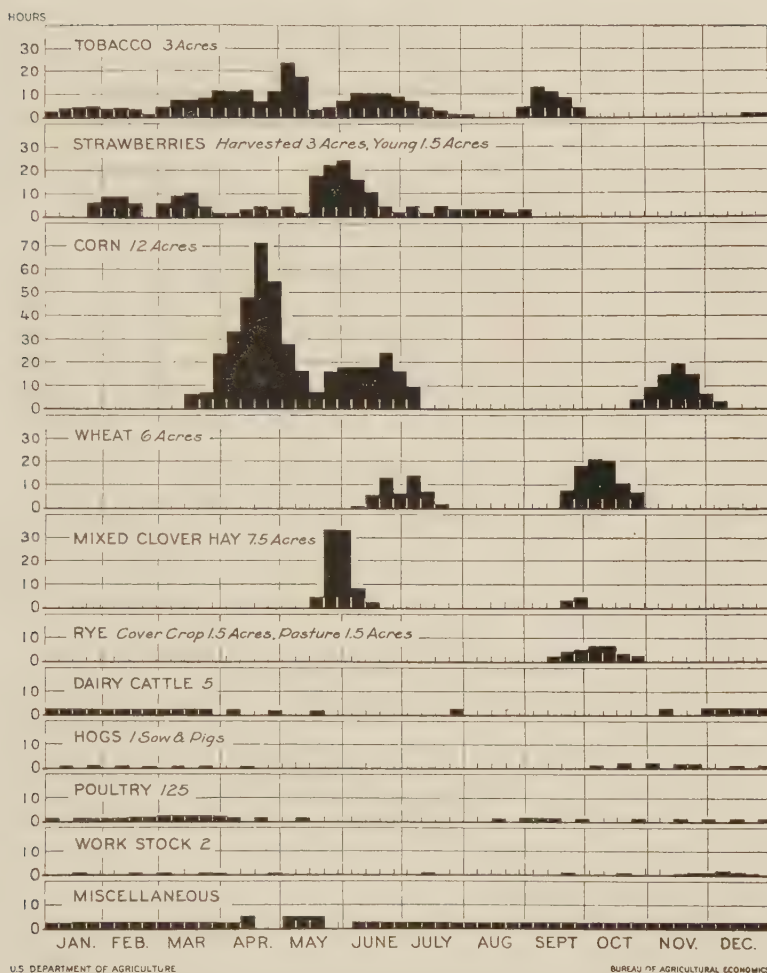


Fig. 6. Seasonal distribution of horse work by crop and livestock enterprises for suggested system 3.

SYSTEMS FOR 80-ACRE FARMS

The acres of crops, numbers of livestock, hours of man labor and horse work and expected returns for systems actually followed on two farms of approximately 80 acres each and two suggested systems for 80-acre farms are shown in Table 6. Each of the actual systems is typical of those being followed on a large number of 80-acre farms in the section.

The expected returns for these systems are worked out in a manner similar to that described for 60-acre farms. Under

TABLE 6. Summary of two actual and two suggested systems¹
(80-acre farms)

| | Actual System 4 | Actual System 5 | Sug- gested System 4 | Sug- gested System 5 |
|---------------------------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|
| Acres | 80 | 85 | 80 | 80 |
| Value of farm, dolls. ² | 3000 | 3325 | 3500 | 4500 |
| Livestock, equipment and feed, dolls. | 1225 | 1408 | 2100 | 1700 |
| Number of men | 1.5 | 1 | 1 ³ | 1 ³ |
| Number of work stock | 5 | 3 | 3 | 3 |
| Acres in crops: | | | | |
| Corn for grain | 25 | 16.5 | 16 | 16 |
| Cowpea and soybean hay | — | 5 | 4 | — |
| Mixed clover hay | 1.5 | — | 11 | 8 |
| Grass hay | 5.5 | — | — | — |
| Japan clover hay | — | 5 | — | 4 |
| Sorghum | — | 3 | — | — |
| Wheat | — | — | 11 | 8 |
| Rye, cover crop and pasture | — | — | — | 2 |
| Tobacco | 4 | 2.5 | 2 | 4 |
| Strawberries (harvested) | — | 1 | — | 4 |
| Strawberries (young) | — | 1 | — | 2 |
| Other truck | .5 | 1 | 2 | 2 |
| Pasture | 30 | 20 | 22 | 18 |
| Hours man labor on crops | 1671 | 1572 | 1363 | 2332 |
| Hours horse work on crops | 1416 | 1382 | 1356 | 1614 |
| Number of livestock: | | | | |
| Dairy cows | 3 | 5 | 10 | 6 |
| Bull | — | 1 | — | — |
| Dairy heifers (1 to 2 years) | 2 | 4 | 3 | 2 |
| Dairy calves (under 1 year) | 3 | 5 | 3 | 2 |
| Veals | — | — | 6 | 3 |
| Sheep | — | 6 | — | — |
| Boar | — | 1 | — | — |
| Sows | 1 | 2 | 1 | 2 |
| Other hogs | 15 | 28 | 8 | 16 |
| Poultry | 70 | 100 | 135 | 100 |
| Hours man labor on livestock | 1140 | 1636 | 2345 | 1645 |
| Hours horse work on livestock | 111 | 158 | 183 | 143 |
| Farm receipts, dolls. | 979 | 1520 | 1962 | 2407 |
| Products used in home, dolls. | 304 | 268 | 324 | 324 |
| Farm expenses, dolls. | 372 | 465 | 734 | 989 |
| Net returns: | | | | |
| Actual, dolls. | 911 | 1323 | — | — |
| Expected, dolls. | 1095 | 1274 | 1552 | 1742 |

¹Detailed budgets for suggested systems 4 and 5 are shown in the appendix pages 105 to 114. ²Excluding the value of the residence. ³An additional man will be required for about 4 months during the crop growing season.

usual conditions in the section the chances appear about equal for a net return of approximately \$1100 from systems similar to actual system 4, \$1275 from systems similar to actual system

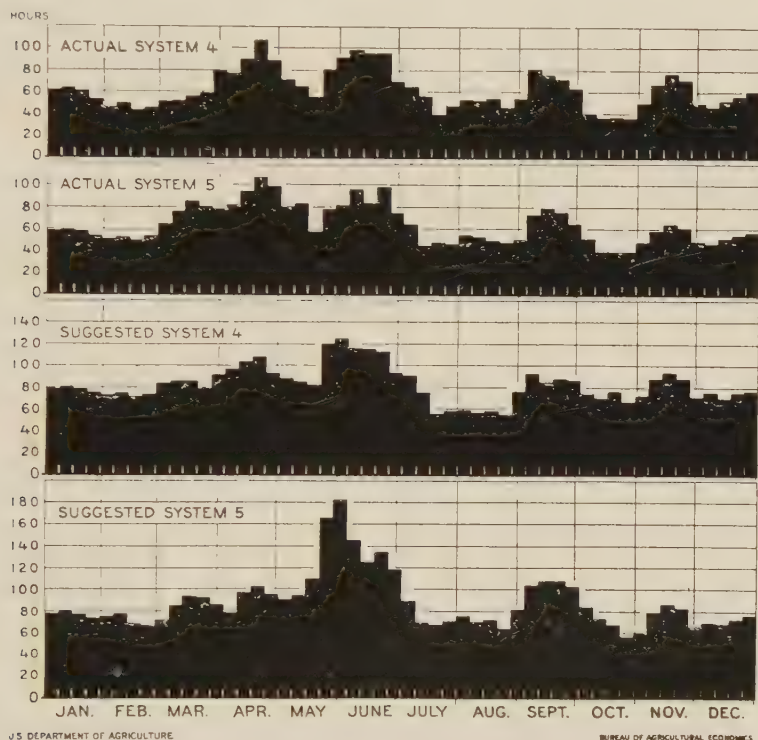


Fig. 7. Seasonal distribution of man labor for actual and suggested systems for 80-acre farms.

5. \$1550 from systems similar to suggested system 4 and \$1750 from systems similar to suggested system 5 (See Table 6). The seasonal distribution of man labor and horse work for each of these systems is shown in figures 7 and 8. One man, with an additional man during the crop-growing season, and five horses do the work on actual system 4, and one man and 3 horses do the work on actual system 5. One man and 3 horses are included in each suggested system.

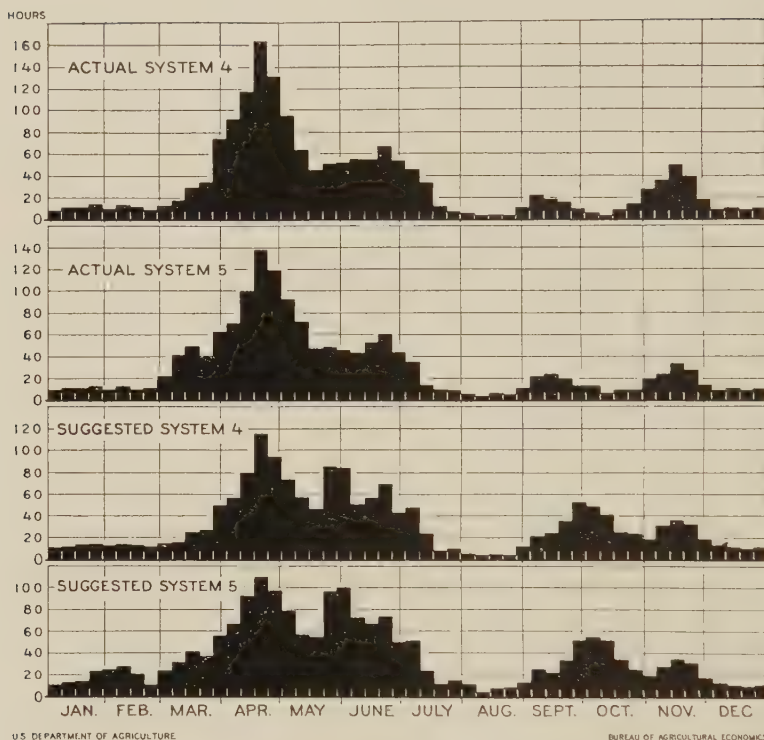


Fig. 8. Seasonal distribution of horse work for actual and suggested systems for 80-acre farms.

Actual System 4

The expected net return from this system is approximately \$1100. It provides two important sources of income, tobacco and dairy cows, and two minor sources, hogs and poultry.

An outstanding weakness in the system is the improper selection of feed crops and the lack of balance between them. Since all the legume hay is obtained from cowpeas and soybeans, and since a large acreage of corn is grown, it is necessary to prepare and plant about one half of the tillable land each year. This results in unusually heavy man labor and horse work requirements in the spring. It also makes it difficult to keep up the fertility of the soil. With the use of mixed clovers for hay and pasture the labor requirements would be much better dis-

tributed, and soil fertility could be maintained much more economically.

The introduction of mixed clovers into the rotation would make it possible to grow more feed and better feed for the livestock. If, at the same time, the present surplus of work stock could be eliminated the numbers of both dairy cows and poultry could be increased, and the income from the system made considerably greater.

Since this farm is only about five miles from a strawberry shipping point it is quite possible that a small acreage of this crop could be added without interfering seriously with the other enterprises. Systems of farming with strawberries and tobacco generally have advantages over systems with only one of these crops.

Actual System 5

The expected net return from this system is approximately \$1275. Most of the income is derived from four sources: Dairy cows, hogs, poultry and tobacco. Two minor sources of income, sheep and strawberries, are also included.

For a rolling farm, such as this, the present system could be improved by reducing the acreage of corn and increasing the acreages of legume hay and pasture. This would make it necessary to reduce the number of hogs, but at the same time it would permit expansion in the number of dairy cows or sheep, or both. At present about forty dollars per cow is spent for protein concentrates and legume hay. It would be advantageous to change the kind of pasturage and increase the acreage. Except for a small amount of rye, which is used for early spring grazing, redtop and Japan clover provide all of the available pasturage on the farm. Much better results could be obtained by using mixed clovers and grasses and preparing for pasture at the time the land is seeded for hay.

With the introduction of more legumes into the rotation, and by keeping more of the land in grass, it would be possible to maintain the fertility of the soil much more economically. Crop yields could be increased considerably above those that

are being obtained at present, and at the same time less commercial fertilizers would need to be bought.

The enterprises in this system are combined in such a way that good use is made of most non-marketable by-products. The man labor and horse work requirements are well distributed. There is usually something to keep the men profitably employed, and at few times during the year are there serious conflicts in the demands of two or more enterprises for labor.

Suggested System 4

The expected net return from this system is approximately \$1550. It provides three important sources of income, tobacco, dairy cows and poultry, and two minor sources of income, wheat and hogs. The cropping program requires six 11-acre fields. One field is planted to corn. The following year it is planted to 2 acres of tobacco, 5 acres of corn and 4 acres of soybean hay. Wheat is sown in the fall of the second year, followed by mixed clover and grass, which is cut for hay one year and pastured two years. The field is planted to corn again the seventh year. Superphosphate is applied on corn at the rate of 400 pounds per acre the first year and 200 pounds per acre the second year. A complete fertilizer is applied on tobacco at the rate of 350 pounds per acre and ground limestone on wheat at the rate of 2 tons per acre. The dairy cows are fed corn, mixed clover hay, corn stover, bran and shorts, and cottonseed meal. Whole milk is sold. Tankage is bought to balance the ration for the hogs, and meat scrap and bran and shorts are bought to balance the ration for the poultry.

This system is particularly adapted to farms located so far from the market that strawberries and other fruit crops cannot be marketed economically. Tomatoes may be substituted for the tobacco in this system, where markets are available. If 4 acres of tomatoes were substituted for 4 acres of tobacco the change would reduce the man labor requirements about 400 hours, increase the horse labor requirements about 120 hours, and reduce the net returns about \$50.

Suggested System 5

The expected net return from this system is approximately \$1750. It provides four important sources of income, tobacco, strawberries, dairy cows and poultry, two minor sources, wheat and hogs.

The cropping program includes two rotations. The major rotation requires six 8-acre fields. The crops in this rotation are corn, two years; wheat, one year; mixed clover hay, one year; and mixed clover and grass pasture, two years. Superphosphate is applied on corn at the rate of 400 pounds per acre the first year, 200 pounds per acre the second year, and ground limestone on wheat at the rate of 2 tons per acre. The other rotation requires four 4-acre fields. Tobacco is grown on one field, followed by a cover crop of rye. The following year half of this field is planted to strawberries and half to Japan clover and grass. The Japan clover is pastured one year and cut for hay two years. Each of these crops remains three years. The entire field is planted to tobacco again the fifth year. The strawberries and Japan clover are alternated in succeeding rounds of the rotation. A complete fertilizer is used on tobacco at the rate of 500 pounds per acre and superphosphate on strawberries at the rate of 200 pounds per acre. The feeds for the livestock are similar to those indicated under suggested system 4.

Tobacco precedes strawberries in the rotation. This makes it possible to keep the ground clean with the least possible labor, and tends to prevent trouble with grubs when the plants are transplanted. This system is adapted to farms located within ten miles of a strawberry shipping point. In cases in which the conditions on the farm and markets make the growing of sweet-potatoes or dewberries or other fruit crops advisable one of these crops may be substituted for strawberries or tobacco.

SYSTEMS FOR 100-ACRE FARMS

The acres of crops, numbers of livestock and expected returns for two systems actually followed on farms of approximately 100 acres each and two suggested systems for 100-acre farms are shown in Table 7. The seasonal distribution of man

labor and horse work for each of these systems is shown in Figures 9 and 10. The work on actual system 6 is done by one man and 3 horses. The work on actual system 7 is done by 2

TABLE 7. Summary of two actual systems and two suggested systems¹
(100-acre farms)

| | Actual System 6 | Actual System 7 | Sug- gested System 6 | Sug- gested System 7 |
|---------------------------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|
| Acres | 102 | 105 | 100 | 100 |
| Value of farm, dolls. ² | 5290 | 3750 | 4500 | 5500 |
| Livestock, equipment and feed, dolls. | 1500 | 1015 | 2700 | 2100 |
| Number of men | 1 | 2 | 2 | 2 |
| Number of work stock | 3 | 4 | 4 | 4 |
| Acres in crops: | | | | |
| Corn for grain | 14½ | 25 | 20 | 16 |
| Cowpeas and soybeans | 4 | — | 2 | — |
| Mixed clover hay | — | — | 14 | 16 |
| Japan clover hay | 10 | 16 ³ | — | — |
| Wheat | 16 | — | 14 | 16 |
| Rye, cover crop and pasture | — | — | — | 2.5 |
| Tobacco | 6.5 | 4 | 6 | 5 |
| Strawberries (harvested) | — | — | — | 5 |
| Strawberries (young) | — | — | — | 2.5 |
| Other truck | .5 | 2 | 2.5 | 2.5 |
| Pasture | 30 | 36 | 28 | 23.5 |
| Hours man labor on crops | 2098 | 1852 | 2522 | 3003 |
| Hours horse work on crops | 1705 | 1623 | 1914 | 2016 |
| Number of livestock: | | | | |
| Dairy cows | 5 | 3 | 10 | 10 |
| Dairy heifers (1 to 2 years) | 1 | 1 | 3 | 3 |
| Dairy calves (under 1 year) | 2 | 2 | 3 | 3 |
| Veals | 1 | 1 | 6 | 6 |
| Sows | 2 | 1 | 2 | 1 |
| Other hogs | 17 | 7 | 16 | 8 |
| Poultry | 20 | 104 | 140 | 100 |
| Hours man labor on livestock | 1412 | 1141 | 2490 | 2250 |
| Hours horse work on livestock | 115 | 99 | 206 | 178 |
| Farm receipts, dolls. | 2168 | 1129 | 2488 | 3207 |
| Products used in household, dolls. | 254 | 383 | 460 | 460 |
| Farm expenses, dolls. | 850 | 273 | 891 | 1391 |
| Net returns: | | | | |
| Actual, dolls. | 1572 | 1239 | — | — |
| Expected, dolls. | 1287 | 1025 | 2057 | 2276 |

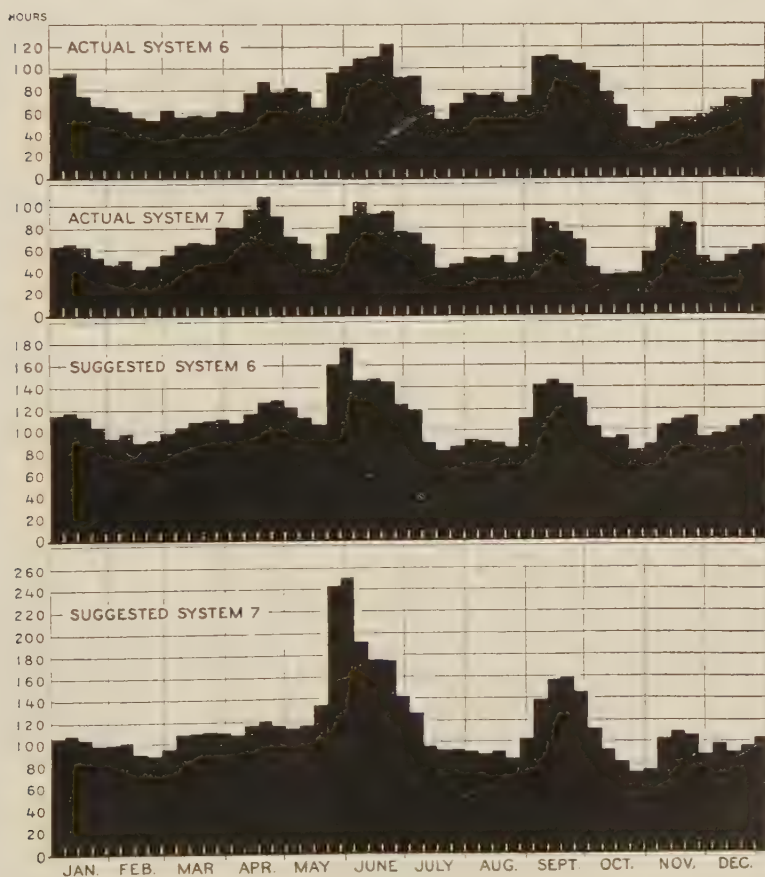
¹Detailed budgets for suggested systems 6 and 7 are shown in the appendix pages 115 to 124. ²Excluding the value of the residence. ³Includes 4 acres oat hay.

men and 4 horses. Suggested systems 6 and 7 are for 2 men and 4 horses.

Actual System 6

The expected net return from this system is approximately \$1300. It provides three important sources of income, tobacco, dairy cows and hogs, and two minor sources, wheat and poultry.

One of the most serious weaknesses of this system is that the feed crops have not been properly selected. Since soybeans are used to provide most of the legume hay, and since a considerable amount of corn is grown, it is necessary to prepare and plant a large acreage of land each year. This results in heavy man labor and horse work requirements in May and June. Owing to the conflict between soybean harvesting and the housing and curing season for tobacco another rush period comes in the fall. By



U.S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

Fig. 9. Seasonal distribution of man labor for actual and suggested systems for 100-acre farms.

substituting mixed clover hay for some of the soybean hay most of this difficulty could be overcome.

To supply the livestock with properly balanced rations a larger acreage of legume hay is needed. With the present system it is necessary to purchase considerable quantities of high-protein feeds. By using a part of the acreage that is now planted to corn for the production of mixed clover hay a better combination of feed crops could be made. This would make it necessary to reduce the number of hogs, but at the same time it would permit more dairy cows to be kept. The poultry enterprise could probably be increased to good advantage also. The

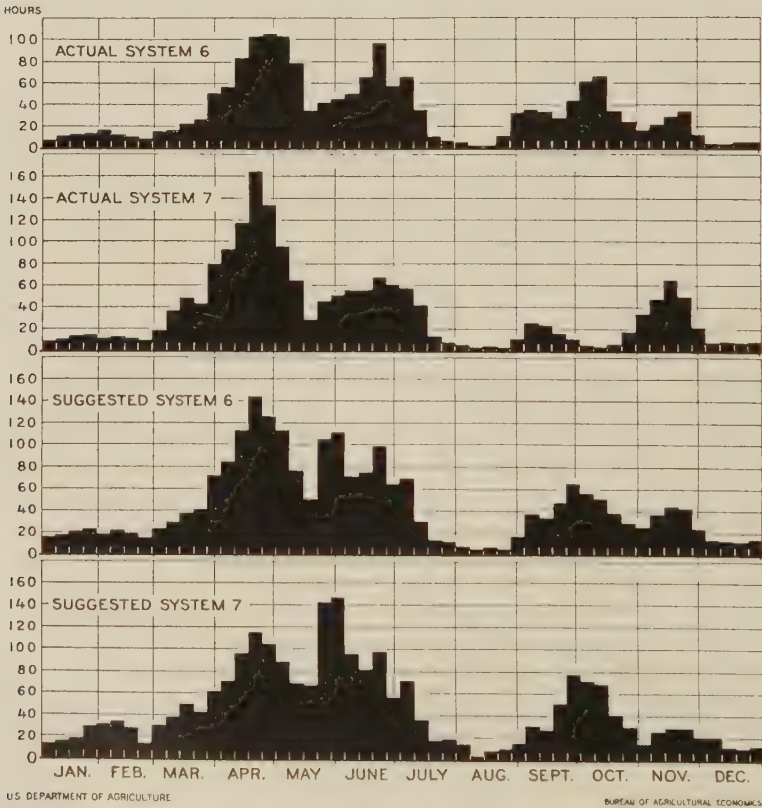


Fig. 10. Seasonal distribution of horse work for actual and suggested systems for 100-acre farms.

crop rotation resulting from such changes would make it easier and cheaper to maintain the fertility of the soil, and the returns would be considerably larger than those that are being realized at present.

This system is superior to the majority of systems that are now being followed in the Purchase. It permits efficient use to be made of all available man labor and horse work, and the crop yields show that it provides an adequate program for maintaining the fertility of the soil. For a one-man farm the returns are far from discouraging.

Actual System 7

The expected net return from this system is approximately \$1025. There are two important sources of income, tobacco and poultry, and two minor sources, dairy cows and hogs.

An outstanding weakness of the system is the poor selection of feed crops and the lack of balance between feed crops and livestock. The rations provided by the cropping system are not properly balanced. More corn is produced than is needed to supply the feeding requirements, and no legumes are grown. More than twenty-five dollars per cow is spent each year for protein concentrates. There are not enough livestock kept to utilize the available pasturage.

Since no legumes are provided in the cropping program it is difficult to maintain the fertility of the soil. With the introduction of perennial clovers into the rotation good crop yields could be produced much more economically. In addition more livestock could be kept.

The crops and livestock do not provide profitable employment for the men and teams. As it is now operated two head of work stock probably could furnish all the horse work needed with this system. By the proper selection of feed crops and improvements in the balance between enterprises the system could be made to furnish productive work for most of the available man labor and horse work and the volume of business from the entire farm greatly expanded. The returns from such a system

would be much larger than those that are being realized at present.

Suggested System 6

The expected net return from this system is approximately \$2050. It provides three important sources of income, tobacco, dairy cows and poultry, and two minor sources, wheat and hogs.

The cropping program requires six 14-acre fields. One field is planted to corn. The following year 6 acres of corn, 6 acres of tobacco and 2 acres of soybean hay are grown in this field. Wheat is seeded in the fall of the second year and mixed clover and grass are sown the following spring. The mixed clover and grass is harvested for hay one year and pastured two years. The field is planted to corn again the seventh year. Superphosphate is applied on corn at the rate of 400 pounds per acre the first year, 200 pounds per acre the second year, and ground limestone on wheat at the rate of 2 tons per acre. A complete fertilizer is applied on tobacco at the rate of 350 pounds per acre. The dairy cows are fed corn, mixed clover and soybean hay, corn stover, bran and shorts, and cottonseed meal. Whole milk is sold. Tankage is bought to balance the ration for the hogs, and meat scrap and bran and shorts are bought to balance the ration for the poultry.

Like suggested systems 1 and 4, this system is particularly adapted to those farms located so far from the market that perishable fruits and vegetables cannot be marketed to advantage. It is also well adapted to farms that are particularly suited to growing tobacco of good quality, and may be used with slight modifications by many farmers who have been depending upon tobacco as the principal source of income. While the system as outlined provides for selling whole milk, if there is a satisfactory market cream may be sold about as advantageously, provided enough poultry and hogs are kept to utilize the skim-milk.

Suggested System 7

The expected net return from this system is approximately \$2275. It provides three important sources of income, tobacco,

strawberries and dairy cows, and three minor sources, wheat, hogs and poultry.

The cropping program includes two rotations. The major rotation requires four 16-acre fields. The crops for this rotation are corn, one year; wheat, one year; mixed clover hay, one year; mixed clover and grass pasture, one year. Superphosphate is applied on corn at the rate of 400 pounds per acre and ground limestone on wheat at the rate of 2 tons per acre. The minor rotation requires four 5-acre fields. Tobacco is planted in one field, one-half of which is followed by strawberries and one-half by a mixture of clover and grasses for pasture. Each of these crops remains three years. The field is planted to tobacco again the fifth year. The strawberries and pasture mixture are alternated in succeeding rounds of the rotation. A complete fertilizer is applied on tobacco at the rate of 500 pounds per acre and superphosphate on strawberries at the rate of 200 pounds per acre. The feeds for the livestock are similar to those indicated under suggested system 6.

Such a system is particularly adapted to upland farms located near a market for strawberries, and having land and barns suitable for growing tobacco of good quality. Tomatoes or sweetpotatoes could be substituted for part of the tobacco in this system without interfering with the rotation. In either case slightly less man labor would be required.

SYSTEMS FOR 150-ACRE FARMS

The acres of crops, numbers of livestock, hours of man labor and horse work and expected returns for two systems actually followed on farms of approximately 150 acres each and two suggested systems for 150-acre farms are shown in Table 8. The seasonal distribution of man labor and horse work for each of these systems is shown in Figures 11 and 12. The suggested systems are for 2 men and 4 horses. More than 2 men were used with each actual system and 6 horses are kept on each farm. However, 2 men and 4 horses could have handled a larger business than was handled on either if the crops and livestock had been planned more carefully.

TABLE 8. Summary of two actual systems and two suggested systems¹
(150-acre farms)

| | Actual System 8 | Actual System 9 | Sug- gested System 8 | Sug- gested System 9 |
|---------------------------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|
| Acres | 152 | 150 | 150 | 150 |
| Value of farm, dolls. ² | 3300 | 4500 | 6000 | 8000 |
| Livestock, equipment and feed, dolls. | 1088 | 1299 | 3200 | 3000 |
| Number of men | 3.5 | 2.5 | 2 | 2 ³ |
| Number of work stock | 6 | 6 | 4 | 4 |
| Acres in crops: | | | | |
| Corn for grain | 35 | 35 | 21 | 22 |
| Mixed clover hay | 28 | --- | 26 | 22 |
| Redtop hay | 5 | --- | --- | --- |
| Japan clover hay | --- | --- | --- | --- |
| Sorghum | .5 | --- | --- | --- |
| Wheat | --- | --- | 26 | 24.5 |
| Tobacco | 10 | 10 | 5 | --- |
| Strawberries (harvested) | --- | --- | --- | 5 |
| Strawberries (young) | --- | --- | --- | 2.5 |
| Tomatoes | --- | --- | --- | 5 |
| Other truck | 1 | .5 | 3 | 3 |
| Pasture | 29 | 51.5 | 52 | 49 |
| Hours man labor on crops | 3540 | 3320 | 2766 | 2978 |
| Hours horse work on crops | 2490 | 2260 | 2174 | 2646 |
| Number of livestock: | | | | |
| Dairy cows | 2 | 3 | 12 | 15 |
| Dairy heifers (1 to 2 years) | 1 | --- | 3 | 4 |
| Dairy calves (under 1 year) | --- | --- | 3 | 4 |
| Veals | 2 | 3 | 8 | 10 |
| Sheep | --- | --- | 50 | --- |
| Sows | 1 | 1 | 1 | 2 |
| Other hogs | 6 | 8 | 8 | 16 |
| Poultry | 40 | 75 | 170 | 110 |
| Hours man labor on livestock | 810 | 1115 | 3140 | 3220 |
| Hours horse work on livestock | 77 | 101 | 296 | 259 |
| Farm receipts, dolls. | 899 | 1038 | 2979 | 3876 |
| Products used in household, dolls. | 312 | 319 | 580 | 580 |
| Farm expenses, dolls. | 262 | 437 | 1060 | 1592 |
| Net returns: | | | | |
| Actual, dolls. | 949 | 920 | --- | --- |
| Expected, dolls. | 1218 | 1303 | 2499 | 2864 |

¹Detailed budgets for suggested systems 8 and 9 are shown in the appendix pages 125 to 134. ²Excluding the value of the residence. ³An additional man will be required for about 2 months during the crop growing season.

Actual System 8

The expected net return from this system is approximately \$1225. Three-fourths of the income is obtained from the sale of tobacco. Small sales of dairy products, poultry products and hogs are of minor importance. The total cash income from all sources is only about one thousand dollars per year, a volume of sales much too small for a 150-acre farm, especially when there are three men and six head of work stock available.

An outstanding weakness of this system is the lack of balance between enterprises. The acreage of feed crops is too large

and the amount of livestock is too small. Work stock receive more feed than all other classes of livestock combined. Since no legumes are grown the feed crops do not provide balanced

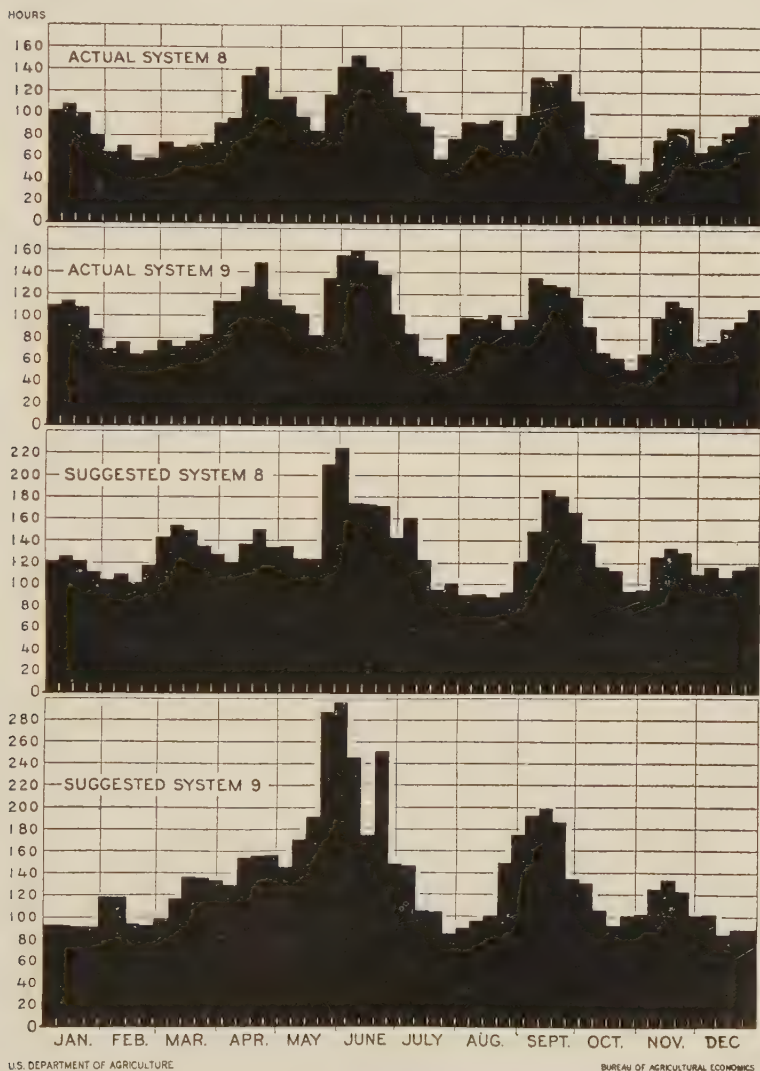


Fig. 11. Seasonal distribution of man labor for actual and suggested systems for 150-acre farms.

rations for the livestock. Except for the period when a volunteer growth of Japan clover is available, pastures are inadequate.

The cropping system does not maintain the fertility of the

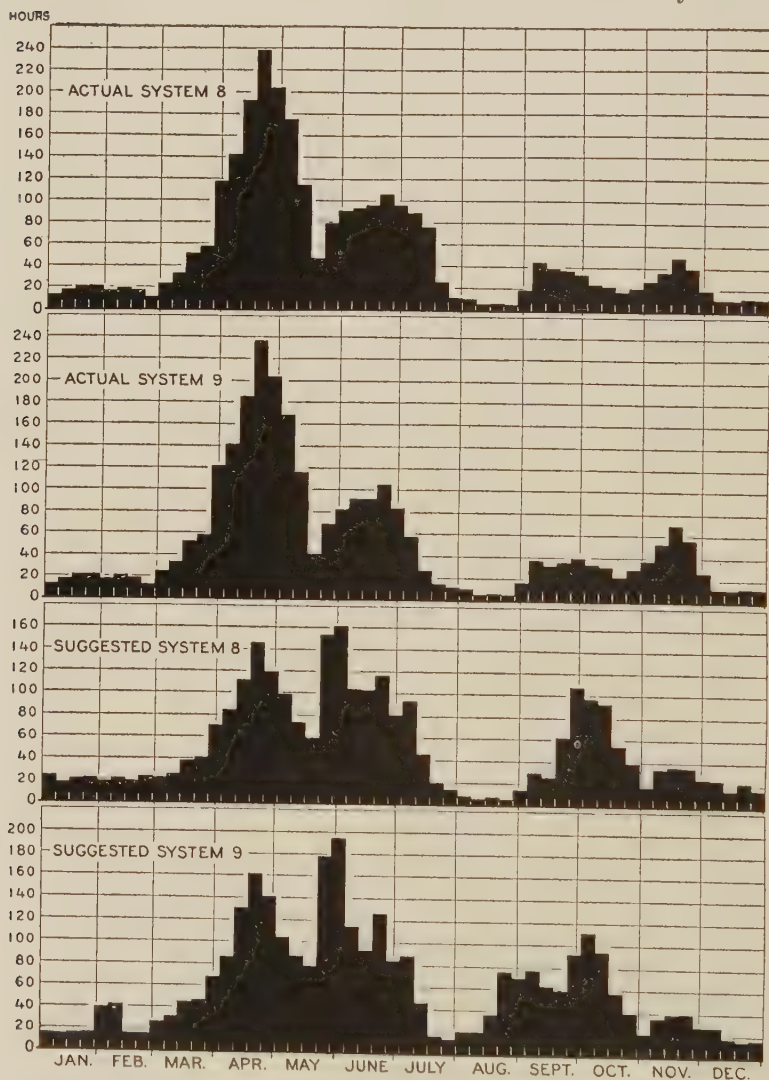


Fig. 12. Seasonal distribution of horse work for actual and suggested systems for 150-acre farms.

U.S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

soil. Corn yields are only about twenty bushels per acre and hay yields are less than one-half ton per acre. With the introduction of perennial clovers into the rotation, and by following a practice of keeping more of the land down in sod, crop yields could be greatly increased.

The men are not fully provided with profitable employment during the growing season, and tobacco stripping and tobacco marketing afford practically the only opportunity for productive work during the winter. The work stock are not kept busy at any time during the year. With an improved cropping program more livestock could be kept profitably. It is especially important that increases be made in those classes of livestock requiring relatively large quantities of hay and pasture.

Actual System 9

The expected net return from this system is approximately \$1300. Tobacco is the only important source of income. Some income is derived from dairy cows, hogs and poultry, but these enterprises are of minor importance. The volume of production from the four enterprises is so small that the total cash sales from this 150-acre farm are only slightly more than one thousand dollars per year.

Over one-third of the tillable land is cultivated in corn and tobacco, and almost one-third is lying idle. Since no roughage is provided for in the cropping system hay is bought, along with large amounts of protein concentrates. The pasture land has only a light seeding of redtop and Japan clover. With better pasture seedings including some perennial clovers and additional grasses, and with legume hay in the cropping system, the livestock could be fed more economically. In addition, more livestock could be kept. The number of dairy cows could be increased to good advantage, or a flock of sheep might be added.

Plans for maintaining the fertility of the soil are wholly inadequate. No perennial clovers are grown, and since the cropping program includes neither small grain nor fall sown grasses all the crop land is left exposed to erosion and leaching during

the winter. No provision is made for building up the fertility of the land lying out.

The system provides little productive employment for the men except during April, May, June, August and September. The work stock are busy only during the rush planting season in the spring

Suggested System 8

The expected net return from this system is approximately \$2500. It provides four important sources of income, dairy cows, sheep, poultry and tobacco, and two minor sources, wheat and hogs.

The cropping program requires five 26-acre fields. In one field 21 acres of corn and 5 acres of tobacco are grown. Wheat is grown the second year, followed by mixed clovers and grass, which is cut for hay one year and pastured two years. The field is planted to corn and tobacco again the sixth year. Superphosphate is applied on corn at the rate of 400 pounds per acre and a complete fertilizer is applied on tobacco at the rate of 500 pounds per acre. Ground limestone is applied on wheat at the rate of 2 tons per acre. The dairy cows are fed corn, mixed clover hay, corn stover, bran and shorts, and cottonseed meal. Butterfat is sold and the skim milk is fed to balance the grain rations for the hogs and poultry.

This system is particularly adapted to the more rolling or broken sections, where a large part of the land should be kept in mixed clovers and grass and a relatively small percent used for cultivated crops. Such farms located near a market for tomatoes, sweetpotatoes, or strawberries might find it advisable to substitute one of these cash crops for a part or all of the tobacco. With good use of the manure and fertilizers the farm should increase in fertility from year to year. The peak man labor and horse work requirements of this system are not so large as those of actual systems 8 and 9, and the expected net returns are more than twice as large.

Suggested System 9

The expected net return from this system is approximately \$2850. Two important sources of income, dairy cows and strawberries, and four minor sources, wheat, tomatoes, poultry and hogs, are provided.

The cropping program includes two rotations. The major rotation requires five 22-acre fields. The crops in this rotation are corn, one year; wheat, one year; mixed clover hay, one year; and mixed clover and grass pasture, two years. Superphosphate is applied on corn at the rate of 400 pounds per acre and ground limestone on wheat at the rate of 2 tons per acre. The minor rotation requires four 5-acre fields. Tomatoes are grown in one field, one-half of which is seeded to wheat and one-half to rye in the fall. The following spring the rye ground is planted to strawberries, and Japan clover and grass are seeded in the wheat. The strawberries are left three years and the Japan clover and grass pastured for two years. The field is planted to tomatoes again the fifth year. Strawberries and wheat and pasture are alternated in succeeding rounds of the rotation. Superphosphate is applied on tomatoes at the rate of 500 pounds per acre and on strawberries at the rate of 200 pounds per acre. The dairy cows are fed in a manner similar to that indicated under suggested system 8. Whole milk is sold. Tankage is bought to balance ration for the hogs, and bran and shorts and meat scrap are bought to balance the ration for the poultry.

This system is particularly adapted to farms located within six or eight miles of a market for tomatoes and strawberries, and accessible to a market for whole milk. For farms located farther from the market tobacco might be substituted for the tomatoes. Such a substitution would not materially change the rotation, but it would increase the man labor requirements slightly. The expected net return would not be greatly different.

SYSTEMS FOR 200-ACRE FARMS

The acres of crops, numbers of livestock and expected returns for two systems actually followed on farms of approximately 200 acres each and two suggested systems for 200-acre

TABLE 9. Summary of two actual systems and two suggested systems¹
(200-acre farms)

| | Actual System 10 | Actual System 11 | Sug- gested System 10 | Sug- gested System 11 |
|---------------------------------------|------------------------|------------------------|--------------------------------|--------------------------------|
| Acres | 230 | 186 | 200 | 200 |
| Value of farm, dolls. ² | 7700 | 13080 | 8000 | 10000 |
| Livestock, equipment and feed, dolls. | 1753 | 2070 | 3600 | 4200 |
| Number of men | 3 | 3 | 3 ² | 3 ² |
| Number of work stock | 6 | 4 | 6 | 6 |
| Acres in crops: | | | | |
| Corn for grain | 52 | 40 | 33 | 35 |
| Corn silage | — | — | 7 | — |
| Cowpea and soybean hay | 4 | 3 | — | — |
| Mixed clover hay | — | 16 | 25 | 29 |
| Grass hay | 16 | 6 | — | — |
| Sorghum | 2 | — | — | — |
| Wheat | — | 29 ³ | 20 | 25 |
| Rye, cover crop and pasture | — | — | — | 4 |
| Tobacco | 11 | 6 | 10 | 4 |
| Strawberries (harvested) | — | — | — | 8 |
| Strawberries (young) | — | — | — | 4 |
| Sweetpotatoes | — | — | — | 4 |
| Other truck | 2 | 2 | 5 | 5 |
| Pasture | 67 | 27 | 75 | 63 |
| Hours man labor on crops | 4228 | 3637 | 4364 | 4676 |
| Hours horse work on crops | 3263 | 3307 | 3394 | 3798 |
| Number of livestock: | | | | |
| Dairy cows | 9 | 7 | 16 | 20 |
| Dairy heifers (1 to 2 years) | 5 | 3 | 4 | 5 |
| Dairy calves (under 1 year) | 9 | 7 | 4 | 5 |
| Veals | — | — | 10 | 14 |
| Sheep | 23 | — | 60 | — |
| Sows | 1 | 3 | 3 | 3 |
| Other hogs | 17 | 18 | 24 | 24 |
| Poultry | 45 | 35 | 240 | 260 |
| Hours man labor on livestock | 2193 | 1635 | 4360 | 4720 |
| Hours horse work on livestock | 214 | 150 | 418 | 380 |
| Farm receipts, dolls. | 1720 | 2221 | 4815 | 5985 |
| Products used in household, dolls. | 447 | 691 | 756 | 756 |
| Farm expenses, dolls. | 507 | 677 | 1525 | 2421 |
| Net return: | | | | |
| Actual, dolls. | 1660 | 2235 | — | — |
| Expected, dolls. | 1754 | 1758 | 4046 | 4320 |

¹Detailed budgets for suggested systems 10 and 11 are shown in the appendix on pages 135 to 144. ²Excluding the value of the residence. ³An additional man will be required for about 1 month during the crop growing season. ⁴An additional man will be required for about 3 months during the crop growing season. ⁵Includes 5 acres oats.

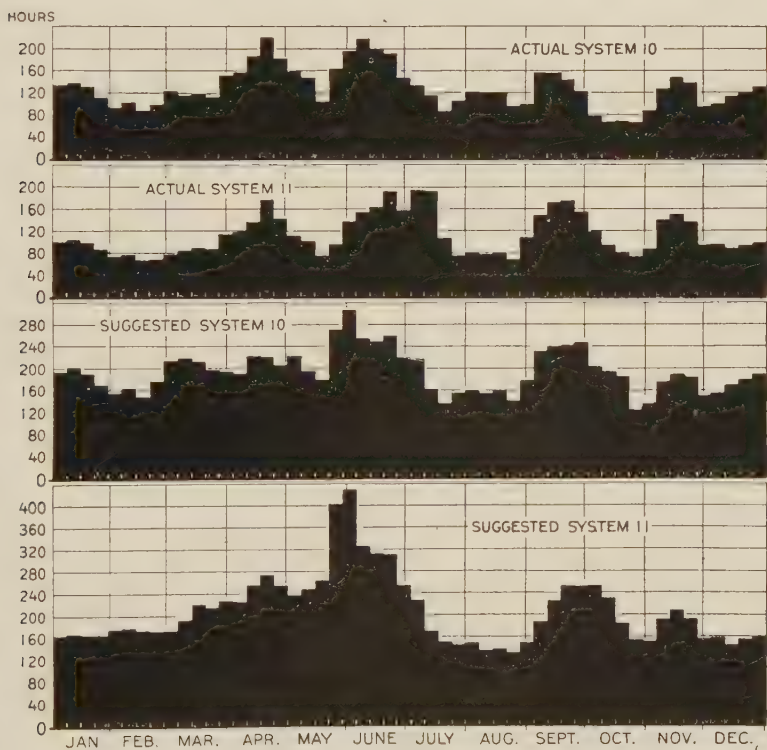
farms are shown in Table 9. Three men and 6 horses do the work for actual system 10, and 3 men and 4 horses do the work for actual system 11. Three men and 6 horses are included for each of the suggested systems. The seasonal distribution of man labor and horse work for each system is shown in Figures 13 and 14.

Actual System 10

The expected net return from this system is approximately \$1750. It provides two important sources of income, tobacco

and dairy cows, and three minor sources, hogs, sheep and poultry.

An outstanding weakness of the system is the inadequacy of the cropping program. The feed crops do not provide a balanced ration for the livestock, and the rotation does not aid materially in maintaining soil fertility. The acreage of corn is too large and the acreage of legume hay too small. In order to provide enough protein for the dairy ration it is necessary to spend more than ten dollars per cow each year for supplementary feeds. With a larger acreage of legume hay the feeding could be done much more economically and more cows could be kept.

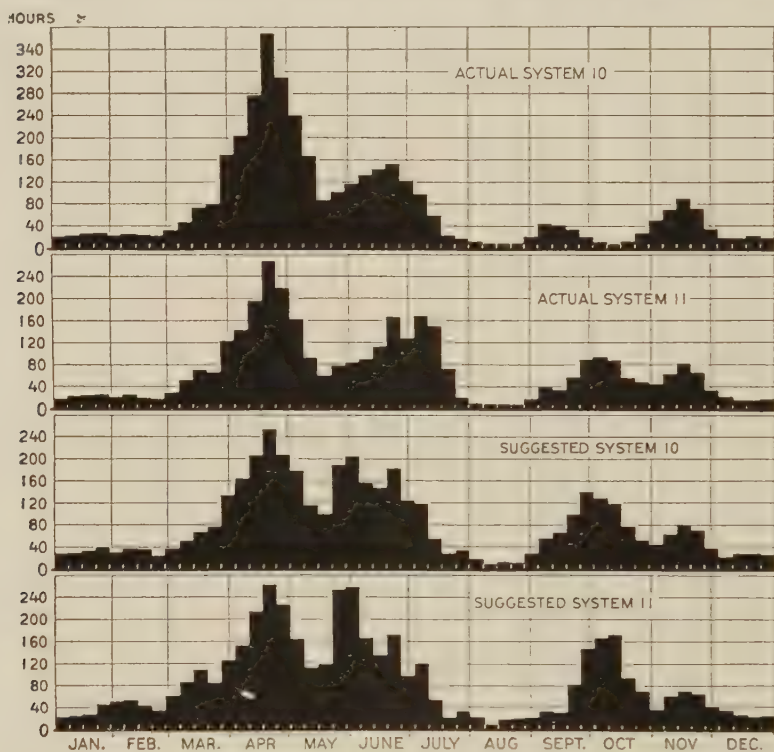


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Fig. 13. Seasonal distribution of man labor for actual and suggested systems for 200-acre farms.

Since corn occupies about three-fifths of the land in crops, and since all the legume hay is obtained from soybeans, it is necessary to break as much land each year as is left in sod.



U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

Fig. 14. Seasonal distribution of horse work for actual and suggested systems for 200-acre farms.

Such a combination of crops makes it very difficult to maintain the fertility of the soil. In spite of the use of considerable quantities of manure from dairy cows and work stock, the yields of corn are normally less than twenty-five bushels per acre and the yields of tobacco only 700 pounds per acre.

A point in favor of the system is that the man labor needs are fairly well distributed throughout the year. Dairy cows, hogs, sheep and tobacco provide productive work during the winter,

and the tobacco and feed crops give a reasonably good distribution of man labor and horse work during the growing season.

Actual System 11

The expected net return from this system is approximately \$1750. It provides two important sources of income, tobacco and wheat, and three minor sources, dairy cows, hogs and poultry.

The cropping program includes perennial legumes for hay and pasture. The feed crops provide good rations for the livestock, so that the expenditures for protein feeds for the cows were kept low. All of the feed crops are fed on the farm and the manure produced by livestock is used to improve the fertility of the soil. This makes it unnecessary to purchase large quantities of commercial fertilizers. Corn yields normally average more than forty bushels per acre and tobacco yields more than 1000 pounds per acre.

The crops and livestock provide a good distribution of labor requirements thruout the year. The livestock and tobacco furnish profitable employment during the winter, and the mixed clover hay and wheat help to distribute the labor requirements during the growing season. Owing to better balance of enterprises, considerably less man labor is required to care for the crops and livestock in this system than is required in actual system 10.

Suggested System 10

The expected net return from this system is approximately \$4050. It provides three important sources of income, tobacco, dairy cows and poultry, and three minor sources, sheep, hogs and wheat.

The cropping program includes two rotations. The major rotation requires six 20-acre fields. Corn is grown for two consecutive years, 7 acres of silage corn being included the second year. In the fall of the second year half of the field is sown to rye, followed by a mixture of clovers and grasses for pasture, and half to wheat, followed by mixed clovers and grass for hay.

The wheat is harvested the third year and the rye field pastured. The fourth year the half in mixed clover and grass following wheat is cut for hay, and the other half pastured. The entire field is pastured the fifth and sixth years, and planted to corn again the seventh year. Superphosphate is applied on corn at the rate of 400 pounds per acre the first year, 200 pounds per acre the second year, and ground limestone on wheat at the rate of 2 tons per acre.

The minor rotation requires five 10-acre fields. The crops are as follows: tobacco, one year; wheat, one year; mixed clover hay, two years; and mixed clover and grass pasture, one year. A complete fertilizer is applied on tobacco at the rate of 500 pounds per acre and ground limestone on wheat at the rate of 2 tons per acre. The dairy cows are fed corn, mixed clover hay, silage and cottonseed meal. Butterfat is sold and skim milk is used to balance the rations for the hogs and poultry. Sheep are fed corn, mixed clover hay, silage, oats, and bran and shorts.

This system is particularly adapted to farms with poorer soils located ten to twenty miles from market. The products grown for sale are of such a nature that they can be hauled long distances to market. A large percent of the land is kept in grass and clover sod which makes it relatively easy to maintain or improve fertility of the soil. In addition to the money returns from systems of this kind other profits accrue in the improvement of the productivity of the soil.

Suggested System 11

The expected net return from this system is approximately \$4325. It provides two important sources of income, strawberries and dairy cows, and four minor sources, tobacco, wheat, poultry and hogs.

The cropping program includes two rotations. The major rotation requires four 35-acre fields. Corn is grown in one field. Following the corn 25 acres are seeded to wheat, followed by mixed clovers and grass for hay, and 10 acres are seeded to a mixture of clovers and grasses for pasture. The wheat is harvested the second year and mixed clover hay the third year.

The pasture mixture is pastured the second and third years. Both parts of the field are pastured the fourth year and planted to corn again the fifth year. Superphosphate is applied on corn at the rate of 400 pounds per acre and ground limestone on wheat at the rate of 2 tons per acre.

The minor rotation requires four 8-acre fields. Tobacco is grown on one half of one field and sweetpotatoes on the other half. Following sweetpotatoes rye is seeded in the fall and mixed clovers and grass sown the following spring. This remains in clover and grass for 3 years, being cut for hay one year and pastured two years. Following tobacco the other half of the field is seeded to a rye cover crop in the fall, planted to strawberries the following spring and left 3 years. Tobacco and sweetpotatoes are planted again the fifth year, the sweetpotatoes following strawberries and the tobacco following mixed clover pasture. That is, the tobacco and strawberries, and the sweetpotatoes, hay and pasture crops are alternated in succeeding rounds of the rotation. A complete fertilizer is applied on tobacco at the rate of 500 pounds per acre and superphosphate on strawberries at the rate of 200 pounds per acre. A complete fertilizer is applied on sweetpotatoes at the rate of 250 pounds per acre, and on the rye which follows them ground limestone is applied at the rate of 2 tons per acre. The cows are fed corn, mixed clover hay, corn stover, bran and shorts, and cottonseed meal. Whole milk is sold. Tankage is bought to balance the ration for the hogs, and meat scrap and bran and shorts are bought to balance the ration for the poultry.

This system is particularly adapted to farms located within eight or ten miles of a strawberry shipping point. It is adapted to farms operated either by hired labor or tenant labor, since the strawberries can be handled by the landlord and the tobacco can be handled on the share basis by tenants or croppers. Such a system is also well suited to the needs of a landlord who has two or three sons grown or about grown who wish to stay on the same farm. Although it provides for more cultivated crops than suggested system 10 this system keeps a good percent of the land seeded to mixed clovers and grass, and with judicious use of

manure and commercial fertilizer the fertility of the soil can be maintained or increased.

SYSTEMS FOR 300-ACRE FARMS

The acres of crops, numbers of livestock and expected net returns for two systems actually followed on farms of approximately 300 acres each and two suggested systems for 300-acre farms are shown in Table 10. Four men and 9 horses do the

TABLE 10. Summary of two actual systems and two suggested systems¹
(300 acre farms)

| | Actual System 12 | Actual System 13 | Sug- gested System 12 | Sug- gested System 13 |
|---------------------------------------|------------------------|------------------------|--------------------------------|--------------------------------|
| Acres | 295 | 313 | 300 | 300 |
| Value of farm, dolls. ² | 10800 | 18600 | 10000 | 12000 |
| Livestock, equipment and feed, dolls. | 898 | 1963 | 6400 | 5400 |
| Number of men | 4 | 3 | 3 ³ | 3 ⁴ |
| Number of work stock | 9 | 6 | 7 | 7 |
| Acres in crops: | | | | |
| Corn for grain | 72 | 44 | 45 | 40 |
| Corn silage | — | — | — | 8 |
| Cowpea and soybean hay | — | 25 | — | — |
| Mixed clover hay | — | 16 | 52 | 38 |
| Redtop hay | 5 | — | — | — |
| Sorghum | 7 | — | — | — |
| Wheat | 5 | 103 | 26 | 32 |
| Rye, cover crop and pasture | 3 ⁵ | — | — | 4 |
| Tobacco | 3 | 9 | 7 | 4 |
| Strawberries (harvested) | — | — | — | 3 |
| Strawberries (young) | — | — | — | 4 |
| Tomatoes | — | — | — | 4 |
| Other truck | 1 | 5 | 6 | 6 |
| Pasture | 85 | 92 | 130 | 122 |
| Hours man labor on crops | 3212 | 5105 | 4226 | 5482 |
| Hours horse work on crops | 3833 | 6754 | 3717 | 4772 |
| Number of livestock: | | | | |
| Dairy cows | 2 | 6 | 25 | 22 |
| Bull | — | 1 | — | — |
| Dairy heifers (1 to 2 years) | — | 1 | 6 | 5 |
| Dairy calves (under 1 year) | 2 | 7 | 6 | 5 |
| Veals | — | — | 17 | 15 |
| Sheep | — | 37 | 120 | 100 |
| Boar | — | 1 | — | — |
| Sows | — | 4 | 3 | 3 |
| Other hogs | 4 | 45 | 24 | 24 |
| Poultry | 36 | 38 | 300 | 250 |
| Hours man labor on livestock | 894 | 1927 | 6310 | 5630 |
| Hours horse work on livestock | 85 | 246 | 602 | 553 |
| Farm receipts, dolls. | 804 | 4690 | 6188 | 7168 |
| Products used in household, dolls. | 356 | 320 | 854 | 854 |
| Farm expenses, dolls. | 509 | 1321 | 2118 | 2878 |
| Net returns: | | | | |
| Actual, dolls. | 651 | 3689 | — | — |
| Expected, dolls. | 769 | 4014 | 4924 | 5144 |

¹ Detailed budgets for suggested systems 12 and 13 are shown in the appendix on pages 145 to 154. ² Excluding the value of the residence. ³ An additional man will be required for about 8 months. ⁴ An additional man will be required for about 10 months. ⁵ Wheat.

work for actual system 12, and 3 men and 6 horses do the work for actual system 13. The suggested systems are for 3 men and 7 horses. Some additional man labor will probably be required during April, May and June each year for each of the suggested

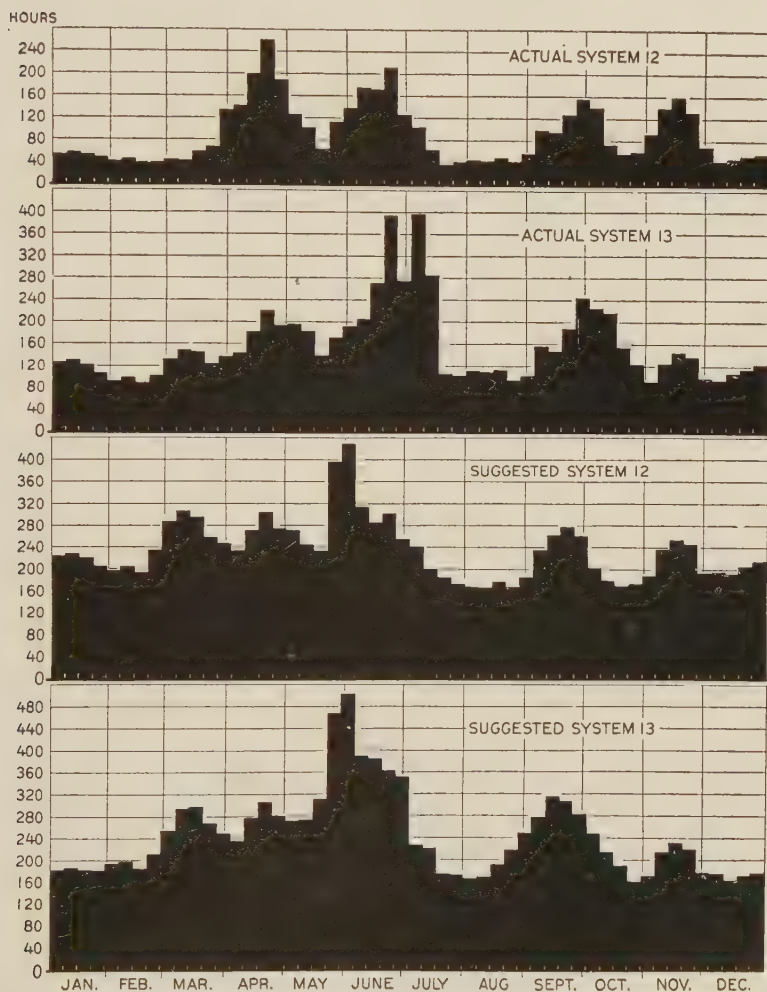
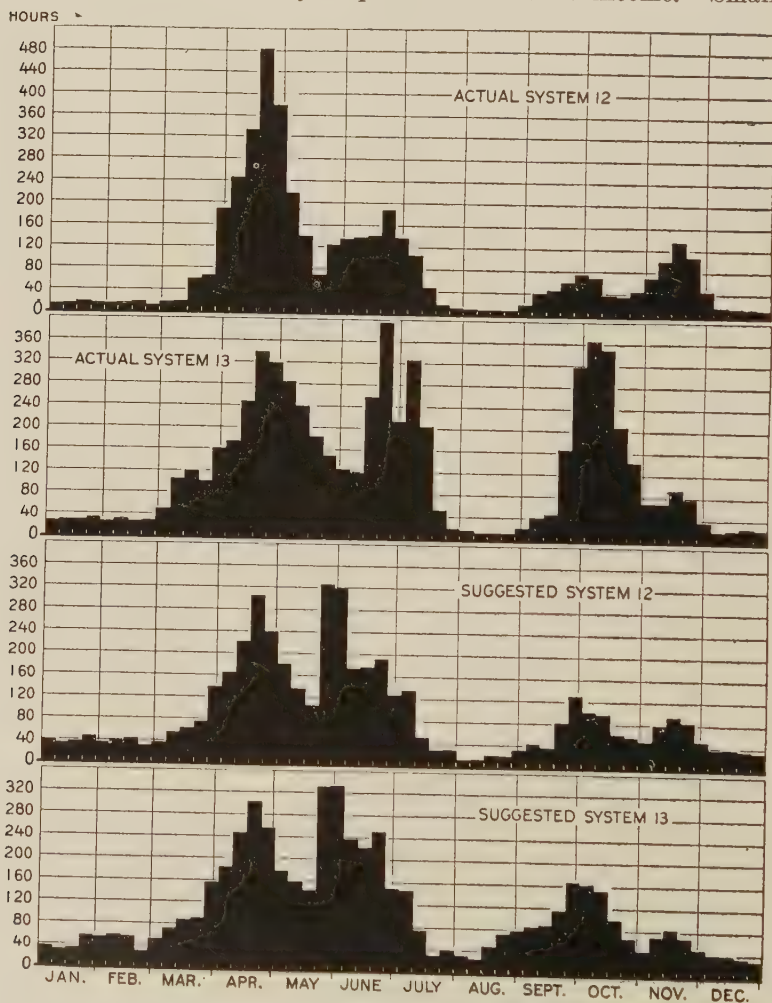


Fig. 15. Seasonal distribution of man labor for actual and suggested systems for 300-acre farms.

systems. The seasonal distribution of man labor and horse work for each system is shown in Figures 15 and 16.

Actual System 12

The expected net return from this system is approximately \$775. Corn is the only important source of income. Small



U.S. DEPARTMENT OF AGRICULTURE

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Fig. 16. Seasonal distribution of horse work for actual and suggested systems for 300-acre farms.

acres of tobacco and sorghum are produced for sale and small amounts of surplus dairy and poultry products are sold, but more than half of the cash receipts come from the sale of corn.

One of the outstanding weaknesses of the system is the lack of balance between feed crops and cash crops and the selection of cash crops. Too much land is used in producing corn, four-fifths of the crop land being devoted to that crop. A yield of only 25 bushels per acre is obtained. With such low yields it is impossible to grow corn profitably for sale. Since good yields of tobacco are obtained a larger acreage of this crop could probably be grown advantageously to replace corn as an important source of income.

Another outstanding weakness of this system is the poor selection of feed crops and the lack of balance between feed crops and livestock. Very little productive livestock is kept. Not enough hay is produced to supply the needs of the livestock and no legume hays are provided.

In order to keep up the fertility of soils that are handled in this way it is necessary to purchase large amounts of complete fertilizer. This is a very uneconomical method of maintaining the productivity of the soil. By following a rotation including mixed clover for hay and pasture, and with the introduction of dairy cows and sheep to utilize these feeds, the fertility of the land could be maintained much more economically.

Another weakness of the system is the distribution of man labor and horse work requirements. For a short period in early summer when the land is being prepared and planted the requirements are heavy. During other seasons the men are not fully employed, and for a large part of the year there is practically no productive work that can be done on crops or livestock. Nine head of work stock are kept, and while they are all used for a few days in the spring and early summer, the majority of this stock is idle during the most of the year.

Actual System 13

The expected net return from this system is approximately \$4000. It provides two important sources of income, wheat and

hogs, and three minor sources, tobacco, dairy cows and sheep. In addition, small amounts of surplus poultry products and feed crops are sold.

The combination of crops and livestock gives a good seasonal distribution of man labor and horse work, so that 3 men with 6 horses accomplish a great deal more than 4 men with 9 horses accomplish in actual system 12. However, for the general up-land farms in the Purchase, this system could be greatly improved by a better balance of cash crops and feed crops. The wheat acreage is so large that it is very difficult to maintain the fertility of the soil. With the present acreage of crops on this size farm it is necessary that the land be cultivated or seeded to wheat about two years out of three. The soil could be maintained and crops produced much more economically if wheat was decreased to about one-third or one-half the present acreage and the mixed clover hay increased to about twice the present acreage.

This change in crops would permit a considerable increase in the number of sheep and dairy cows and a better utilization of the pasture. It would also provide more manure which could be used on the tobacco and corn to good advantage. Such a combination of crops and livestock would also give an even better distribution of man labor and horse work requirements. With a larger percent of the returns coming from livestock the income would be more nearly the same from year to year, and the returns would normally be greater than those obtained from the present system.

Suggested System 12

The expected net return from this system is approximately \$4925. It provides three important sources of income, dairy cows, sheep and poultry, and three minor sources, tobacco, wheat and hogs.

The cropping program requires five 52-acre fields. In one field 45 acres of corn and 7 acres of tobacco are grown. One half of this field is seeded to wheat in the fall; the other half is seeded to rye. Mixed clovers and grass are seeded on the entire

field in the spring of the second year, the half in rye being pastured, and the wheat harvested for grain. Mixed clover hay is cut the third year and the field pastured the fourth and fifth years. The field is planted to corn and tobacco again the sixth year. Superphosphate is applied on corn at the rate of 400 pounds per acre and a complete fertilizer applied on tobacco at the rate of 500 pounds per acre. Ground limestone is applied on rye and wheat at the rate of 2 tons per acre. The dairy cows are fed corn, mixed clover hay, corn stover, bran and shorts, and cottonseed meal. Whole milk is sold. Tankage is bought to balance the ration for the hogs, and bran and shorts and meat scrap are bought to balance the ration for the poultry. The sheep are fed corn, linseed meal and mixed clover hay.

Like suggested system 10, this system is particularly adapted to large farms located some distance from market. They are both rather extensive types of farming, and the products sold are of such nature that they can be hauled long distances to market. With about 80 percent of the land seeded to mixed clovers and grass and with the large amount of livestock it is very easy to maintain crop yields well above the average of the section, even on rolling lands. With slight modifications this general system can be adapted to farms larger or smaller than 300 acres.

Suggested System 13

The expected net return from this system is approximately \$5150. It is a rather highly diversified system of farming. It provides three important sources of income, strawberries, dairy cows and sheep, and five minor sources, poultry, hogs, wheat, tobacco and tomatoes.

The cropping program requires five 52-acre fields. In one field 40 acres of corn, 8 acres of silage and 4 acres of tomatoes are grown. Thirty-two acres of wheat and 20 acres of rye are seeded in the fall. The part of the field in wheat is seeded to mixed clovers and grass the following spring, which is cut for hay the third year and pastured the fourth and fifth years. Sixteen acres of the part of the field in rye are seeded to a mix-

ture of clovers and grasses which is pastured during that year and the two years following. The remaining 4 acres are planted to tobacco the second year, followed by strawberries the third, fourth and fifth years. The field is planted to corn, corn silage and tomatoes again the sixth year. Superphosphate is applied on corn and corn silage at the rate of 400 pounds per acre and on tomatoes at the rate of 500 pounds per acre. Ground limestone is applied on wheat at the rate of 2 tons per acre. A complete fertilizer is used on tobacco at the rate of 350 pounds per acre and superphosphate on strawberries at the rate of 200 pounds per acre. The cows are fed corn, mixed clover hay, silage and cottonseed meal. Whole milk is sold. Tankage is bought to balance the ration for the hogs, and bran and shorts and meat scrap are bought to balance the ration for the poultry. The sheep are fed corn, oats and mixed clover hay.

This system is adapted to large farms located within a reasonable distance of a market for tomatoes and strawberries. It offers an opportunity for the good farm manager to capitalize upon his ability to manage. Some of the crops are intensive in nature and require large amounts of time at certain seasons of the year, while some of the crops and livestock are extensive and require very little labor for the amount of land involved.

SIZE OF FARM AND NET RETURNS

As suggested in the preceding sections, many farmers in the Purchase can increase their profits by more wisely selecting the crops and livestock, or by making increases along some lines and decreases along others. Often further increases in returns may be made by increasing the size of the unit operated. The acreage of many farms in the Purchase was determined when tobacco was the principal source of income. Few crops require as much man labor and horse work as tobacco; consequently when other enterprises are substituted for tobacco the size of the business unit usually is decreased, unless the acreage is increased.

The outlines of the most profitable systems in the different size groups are shown in Table 11. Only one system is brought

forward for each group. As explained previously, in calculating the expected net returns in the preceding tables expenses for man labor, taxes and interest on the investment have not been deducted. In the preceding tables, only systems requiring approximately equal acreages, investments and amounts of man

TABLE 11. Summary of most profitable systems for farms with different acreages

| | Suggested System 3 | Suggested System 5 | Suggested System 7 | Suggested System 9 | Suggested System 11 | Suggested System 13 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|
| Acres | 60 | 80 | 100 | 150 | 200 | 300 |
| Value of farm, dolls. ¹ | 3500 | 4500 | 5500 | 8000 | 10000 | 12000 |
| Livestock, equipment and feed, dolls. | 1450 | 1700 | 2100 | 3000 | 4200 | 5400 |
| Number of men | 1 | 1 | 2 | 2 | 3 | 3 |
| Number of work stock | 2 | 3 | 4 | 4 | 6 | 7 |
| Acres in crops: | | | | | | |
| Corn for grain | 12 | 16 | 16 | 22 | 35 | 40 |
| Corn silage | --- | --- | --- | --- | --- | --- |
| Mixed clover hay | 7.5 | 8 | 16 | 22 | 29 | 38 |
| Japan clover hay | --- | 4 | --- | --- | --- | --- |
| Wheat | 6 | 8 | 16 | 24.5 | 25 | 32 |
| Rye, cover crop and pasture | 1.5 | 2 | 2.5 | 2.5 | 4 | 4 |
| Tobacco | 3 | 4 | 5 | --- | 4 | 4 |
| Strawberries (harvested) | 3 | 4 | 5 | 5 | 8 | 8 |
| Strawberries (young) | 1.5 | 2 | 2.5 | 2.5 | 4 | 4 |
| Sweetpotatoes | --- | --- | --- | --- | 4 | --- |
| Tomatoes | --- | --- | --- | 5 | --- | 4 |
| Other truck | 2 | 2 | 2.5 | 3 | 5 | 6 |
| Pasture | 15 | 18 | 23.5 | 49 | 63 | 122 |
| Hours man labor on crops | 1741 | 2332 | 3003 | 2978 | 4676 | 5482 |
| Hours horse work on crops | 1216 | 1614 | 2016 | 2646 | 3798 | 4772 |
| Number of livestock: | | | | | | |
| Dairy cows | 5 | 6 | 10 | 15 | 20 | 22 |
| Dairy heifers (1 to 2 yrs.) | 2 | 2 | 3 | 4 | 5 | 5 |
| Dairy calves (under 1 yr.) | 2 | 2 | 3 | 4 | 5 | 5 |
| Veals | 2 | 3 | 6 | 10 | 14 | 15 |
| Sheep | --- | --- | --- | --- | --- | 100 |
| Sows | 1 | 2 | 1 | 2 | 3 | 3 |
| Other hogs | 8 | 16 | 8 | 16 | 24 | 24 |
| Poultry | 125 | 100 | 100 | 110 | 260 | 250 |
| Hours man labor on livestock | 1470 | 1645 | 2250 | 3220 | 4720 | 5630 |
| Hours horse work on livestock | 120 | 143 | 178 | 259 | 380 | 553 |
| Farm receipts, dolls. | 1958 | 2407 | 3207 | 3876 | 5985 | 7168 |
| Products used in household, dolls. | 324 | 324 | 460 | 580 | 756 | 854 |
| Farm expenses, dolls. | 832 | 939 | 1391 | 1592 | 2421 | 2878 |
| Expected net return, including products used in household | 1450 | 1742 | 2276 | 2864 | 4320 | 5144 |
| Taxes | 40 | 50 | 62 | 89 | 113 | 137 |
| Labor cost, if hired, excluding operator ² | 63 | 204 | 439 | 612 | 1201 | 1317 |
| Earnings of operator and return on investment | 1347 | 1488 | 1775 | 2163 | 3006 | 3690 |

¹Excluding the value of the residence. ²Hired labor is charged at 16 cents per hour. The amount hired is obtained by adding 15 percent to the hours shown for crops and livestock and deducting 3300 hours as operator's labor.

labor have been compared. In Table 11 the acreage, investments and man labor requirements are different for different systems, and deductions are made for taxes and the cost of all man labor except that of one man. The remainders represent the returns for the operators' labor and management and the investment in land, buildings, livestock, equipment and feeds. Under conditions discussed in the preceding sections, the chances appear about equal for a return for these items of approximately \$1350 for 60-acre systems similar to suggested system 3, \$1475 for 80-acre systems similar to suggested system 5, \$1775 for 100-acre systems similar to suggested system 7, \$2150 for 150-acre systems similar to suggested system 9, \$3000 for 200-acre systems similar to suggested system 11, and \$3700 for 300-acre systems similar to suggested system 13. If the value of the products furnished the operator's household were deducted in each case the remainder would represent the cash return left for upkeep of the home, living expenses, savings and investments.

As stated previously, fair to good management is assumed in calculating the expected net returns for each system. With unusually good management returns larger than those shown may be obtained from any of the systems. More capable managers are required for the larger farms. However, a good manager will usually make larger profits operating a larger unit than by operating a small one and, in the case of the smaller farms, if the farmer has the capacity to supply exceptional management, it will usually pay to consider a larger acreage.

The acreage of the farm may be increased by buying or renting additional land, or by selling the present farm and buying or renting a larger one. Good farmers can usually obtain credit thru Farm Loan Associations, Joint-Stock Land Banks, insurance companies and other agencies that will make such transfers possible.

There are some farmers in the Purchase who will not find it advisable to increase the size of their farms. While the opportunities for profits are usually greater with large farms than with small ones the possibilities of losses are also greater.

Some farmers are not temperamentally suited to handle large units. Many farmers have reached the stage in life when they are not able or do not care to assume the responsibility for large undertakings. Such farmers will find the smaller farming units more advisable.

There is a best size of farm for every farmer, depending largely upon the kind of farming and his own ability and inclinations. The final decision as to the number of acres to operate must depend upon the farmer's own appraisal of his ability, and that of those upon whom he depends for credit. The material presented in this bulletin should be helpful to farmers of the Purchase in determining the size of farm and system of farming that they can operate most effectively.

PLANNING FOR PROFITABLE FARMING

Often prices or conditions on the farm may be such as to make it advisable to reorganize the farm completely and introduce a new system of farming, or one markedly different from the one that has been followed. In trying to decide whether or not a change will be advisable a farmer should look about in his own community, and in other communities that have similar conditions, and consider the results that other farmers are getting with other crops, livestock and systems. He should also study bulletins and reports showing the requirements and production of other crops and livestock, the prices of farm products and the results obtained on other farms.

A study of the systems outlined in this bulletin should help in determining the possibilities of different crops and livestock. The outlines of the actual and suggested systems for farms having resources similar to those of the farm for which plans are being made should be studied and the expected returns compared with those being obtained with the present system.

A system that has given good results on one farm may not give good results on another farm, even in the same community, since no two farms are exactly alike. However, this general appraisal of other systems is a good starting place. From it a farmer should get a general idea of the crops and livestock best

adapted to his conditions, as well as learn how they may be combined into more profitable systems of farming.

The use of carefully worked-out budgets, similar to that shown on pages 51, 52 and 53, is the most accurate way to compare the various systems that may be considered. If these budgets are to lead to correct conclusions they must be based on normal crop requirements and yields, normal livestock requirements and production, and prices for the products to be sold and expense items that prevail under usual conditions in the section. Therefore, before budgets are made, the crops and livestock that are to be considered should be listed and normal requirements, yields and production recorded for each, on the acre or head basis, as indicated by Tables 1 and 2. Then the products to be sold and expense items should be listed, and the prices expected under usual conditions in the section recorded for each, as indicated by Table 3. (See pages 32 to 38.)

In Tables 1 and 2 the hours of man labor and horse work are shown, along with the other requirements for crops and livestock. In cases in which the farmer knows approximately how many acres of the different crops and how many head of the different kinds of livestock the men and teams can handle, it will not be necessary to estimate man labor and horse work requirements for the different enterprises. It is important, however, that the peak periods in the demands of these enterprises for man labor and horse work be kept in mind.

The next step in making the budget is to decide upon the particular combination of crops and livestock that is to be considered. After this decision has been made, the crops are listed and the acreages, production, and amounts to be fed and sold are entered, as shown in Section A of the budget on pages 51 to 53. The crops are then listed again in the same order as in the preceding form, and the requirements and cost of purchased items are recorded, as shown in Section B.

Next list the different classes of livestock and enter the number and requirements of each and the cost of items to be bought, as shown in Section C. On another form list the livestock and livestock products in the same order as on the preceding form

and show the quantities to be fed, used in the home and sold, and the value of the quantities to be sold and used in the home, as shown in Section D.

Finally, the cost and value totals are brought forward from Sections A, B, C and D, as shown in Section E. In addition to the direct expenses for crops and livestock brought forward, estimates are included for labor to be hired, fence repair, taxes and other overhead items.

Budgets should be worked out in this way for all the different systems that are being considered. These budget statements should then be compared. In comparing the statements for the different systems each should be considered critically for the purpose of determining the effect of each system on the fertility of the soil, the kinds of markets available for each of the products sold, how well the feed crops provide balanced rations for the livestock, how well the crops and livestock fit together, and how well the non-marketable products such as pasture, straw, stover and skimmilk are utilized with each. With these facts in mind, as well as the returns that may reasonably be expected from each system as shown by the budget statements, one of the systems should be selected as the one to be followed.

It is not usually necessary to make comparisons of this kind, involving other systems of farming, each year. Marked changes in the system of farming are expensive, and often involve learning new things or buying new equipment, and after a system has been decided upon it should be followed until conditions of the period or on the farm have undergone a marked change. A farmer should continually be on the alert, however, for new developments, and if it appears that changed conditions influencing the prices of important products are likely to prevail and influence the prices for a period of years, marked changes in the system of farming should be made as quickly as possible, or a new system adopted. On the other hand, if the prices expected during the coming year appear to be due to conditions more or less temporary in nature, minor changes only should be made in the present system.

In considering minor changes in the system of farming comparisons may be made as to the increases and decreases in sales and expenses that may be expected when some crops or live-stock are substituted for others. In making these comparisons only the receipts and cash expenses for the enterprises need be considered. It will generally be advisable to consider increases in the acreage of the crops and the numbers of the live-stock for which relatively high prices are expected, and decreases in those lines in which relatively low prices are expected.

In making these changes care should be exercised lest too much weight be given to the prices of the present or of the immediate past. Conditions influencing prices are continually changing. The prices of farm products fluctuate widely from year to year, and the changes are seldom uniform. For many products there are fairly definite price cycles and price trends. As much time as possible should be given to the study of price trends and cycles and the conditions influencing prices before changes are finally decided upon. Comparisons involving these minor changes are advisable at the beginning of each year.

FARMING COMPARED WITH OTHER UNDERTAKINGS

From time to time farmers do and should compare the opportunities of farming with those of other undertakings. Too often these comparisons are made between the returns being obtained from the particular system of farming being followed at that time and the returns promised by the other undertakings. Consideration should be given to the returns that may be expected from other systems of farming on this farm or other farms. In other words, the comparisons have often been made between what was being done on a particular farm and what might be done in other undertakings, when they should be made between what might be done on this farm, what might be done on other farms and what might be done in other undertakings.

The returns for the investment and labor and management of the operator for farms of different sizes shown in Table 11 may be compared with returns promised by other undertakings. However, in making such comparisons it will be necessary to

consider any differences that may be expected in the costs of living. Most other undertakings require that one live in a town or city, where rents and food prices are higher than in the country. In making the above calculations of the returns from farming the garden, truck and livestock products used in the household have been valued at farm prices. The same products purchased in town would probably cost about fifty percent more, and this amount should be deducted from the returns promised by other undertakings if the comparisons are to be made fairly. Also, a further deduction of from \$400 to \$800 per year should be made for the additional cost of maintaining a residence in the city. The other systems outlined in the preceding sections may be included in similar comparisons, if deductions are made similar to those made in Table 11.

The basis of comparison suggested above includes only the financial considerations. There are personal and social advantages and disadvantages of living in the country and the city that should be carefully weighed. These social and personal advantages and disadvantages are evaluated by different persons in different ways, and the way they are evaluated by a particular individual should have an important influence upon his choice of an undertaking.

APPENDIX. BUDGETS FOR THE SUGGESTED SYSTEMS OF FARMING

TABLE 12. Budget for suggested system 1 (60-acre farm—1 man, 2 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|-------------------|-------|------------|------------|----------|-----------|-------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 3 | 2850 lbs. | 418.5 bus. | 1.5 bus. | 2850 lbs. | \$285 |
| Corn, grain | 12 | 420 bus. | 9200 lbs. | | | |
| Corn, stover | 4 | 9200 lbs. | | | | |
| Wheat | 8 | 112 bus. | | 10 bus. | 102 bus. | 133 |
| Soybean hay | 1 | 2000 lbs. | 3000 lbs. | | | |
| Mixed clover hay | 8 | 20000 lbs. | 20000 lbs. | | | |
| Clover and grass | 16 | Pasture | Pasture | | | |
| Orchard and truck | 2 | | | | | |
| Lots | 4 | | | | | |
| Woodland | 6 | | | | | |
| Total | | | | | | \$418 |

TABLE 12. Budget for suggested system 1 (60-acre farm—1 man, 2 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------|-------------|---------------|---|------------------|---|---------------------------------|---------------------------|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 750 | 270 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 1500 lbs. 20 yds. 12 lbs. | \$30 1 3 15 4 |
| Corn | 376 | 496 | 1.5 bus. | Farm | Superphosphate Twine Equipment expense | 4800 lbs. 8 lbs. | 53 1 9 |
| Wheat | 120 | 176 | 10 bus. | Farm | Contract threshing Twine Equipment expense | 112 bus. 16 lbs. | 13 3 6 |
| Soybean hay | 20 | 35 | 1.25 bus. | \$3 | Inoculation Equipment expense | | Farm \$1 |
| Mixed clover hay | 88 | 96 | 24 lbs. Red clover 8 lbs. Alsike 24 lbs. Alfalfa 40 lbs. Orchard grass | 7 2 6 7 | Limestone Equipment expense | 16 T. | 52 5 |
| Total | 1354 | 1073 | | \$25 | Fertilizer and other materials Building expense Equipment expense | | 156 15 25 |

TABLE 12. Budget for suggested system 1 (60-acre farm—1 man, 2 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements.

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|--|---|---|--------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 6 | 900 | 60 | Corn Legume hay Corn stover | 96 bus. 15000 lbs. 6000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 1200 lbs. 600 lbs. | \$22 13 18 9 15 |
| Veal calves | 3 | 15 | 3 | Whole milk | 1440 lbs. | | | |
| Dairy calves | 2 | 20 | 2 | Corn Legume hay Whole milk | 2 bus. 400 lbs. 960 lbs. | Bran and shorts Linseed meal Bldg. & miscel. expense | 60 lbs. 20 lbs. | 1 1 1 |
| Dairy heifers | 2 | 20 | 2 | Corn Legume hay | 4 bus. 2000 lbs. | Bran and shorts Bldg. & miscel. expense | 200 lbs. | \$4 1 |
| Sow and pigs | 1 | 80 | 16 | Corn | 112 bus. | Tankage Equipment expense Miscellaneous | 320 lbs. | 12 2 2 |
| Poultry | 100 | 400 | 30 | Corn | 118 bus. | Meat scrap Bran and shorts Baby chick feed Oyster shell Building expense Miscellaneous | 500 lbs. 2000 lbs. 200 lbs. 400 lbs. | 22 36 10 4 20 1 |
| Work stock | 2 | 90 | 10 | Corn Legume hay Corn stover | 30 bus. 5600 lbs. 2800 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 7 4 14 4 |
| Total | | 1525 | 123 | Corn Legume hay Whole milk Corn stover | 412 bus. 23000 lbs. 2400 lbs. 8800 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$125 46 15 14 23 |

TABLE 12. Budget for suggested system 1 (60-acre farm—1 man, 2 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | | |
|--|----------------------------------|------------------|-------------------------|-------|----------------------------------|-------------------|
| | | Fed to Livestock | Used in Home | | Sales | |
| | | | Amount | Value | | |
| Dairy cows Whole milk Veals Cull cows | 30000 lbs. 420 lbs. 2 cows | 2400 lbs. | (365 gal.) 3139 lbs. | \$66 | 24461 lbs. 420 lbs. 2 cows | \$514 34 48 |
| Pork | 1600 lbs. | | 500 lbs. | 44 | 1100 lbs. | 96 |
| Poultry, Eggs | 900 doz. | 50 doz. set | 150 doz. | 38 | 700 doz. | 175 |
| Fryers | 400 lbs. | | 100 lbs. | 26 | 300 lbs. | 78 |
| Hens | 400 lbs. | | | | 400 lbs. | 72 |
| Total | | | | \$174 | | \$1017 |

TABLE 12. Budget for suggested system 1 (60-acre farm—1 man, 2 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | Expenses | |
|--|--------------------------------|----------|
| | | |
| Crops (Section A) | | |
| Livestock and livestock products (Section D) | | |
| Livestock products used in home (Section D) | | |
| Garden and truck | | |
| Total | | |
| | \$418 | 25 |
| | 1017 | 156 |
| | 174 | 35 |
| | 150 | 25 |
| | \$1759 | 125 |
| | Crops (Section B) | 46 |
| | Seeds and plants | 15 |
| | Fertilizer and other materials | 15 |
| | Building expense | 14 |
| | Equipment expense | 23 |
| | Livestock (Section C) | |
| | Feeds purchased | |
| | Building expense | |
| | Equipment expense | |
| | Depreciation on work stock | |
| | Miscellaneous | |
| | General Farm | |
| | Fence expense | |
| | Automobile expense | |
| Net return \$1204 | Total | 36 75 |
| | | \$555 |

TABLE 13. Budget for suggested system 2 (60-acre farm—1 man, 2 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|----------------------|-------|------------|-------------|-----------|------------|-------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 2 | 1900 lbs. | | | 1900 lbs. | \$190 |
| Strawberries | 2 | 140 crates | | | 140 crates | 420 |
| Strawberries (young) | 1 | | | | | |
| Corn, grain | 10 | 350 bus. | 348.75 bus. | 1.25 bus. | | |
| Corn, stover | 10 | 23000 lbs. | 23000 lbs. | | | |
| Mixed clover hay | 10 | 25000 lbs. | 25000 lbs. | | | |
| Japan clover hay | 1 | 2000 lbs. | 2000 lbs. | | | |
| Japan clover pasture | 1 | Pasture | Pasture | | | |
| Clover and grass | 10 | Pasture | Pasture | | | |
| Rye (young clovers) | 11 | Pasture | Pasture | | | |
| Rye (cover crop) | 1 | | | | | |
| Orchard and truck | 2 | | | | | |
| Lots | 4 | | | | | |
| Woodland | 6 | | | | | |
| Total | | | | | | \$610 |

TABLE 13. Budget for suggested system 2 (60-acre farm—1 man, 2 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------|-------------|---------------|-----------------------|-------|--------------------------------|------------|-------|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 500 | 150 | | | Fertilizer (5-9-4) | 1000 lbs. | \$20 |
| | | | | | Canvas | 13 yds. | 1 |
| | | | | | Arsenate of lead | 8 lbs. | 2 |
| | | | | | Building expense | | 10 |
| | | | | | Equipment expense | | 3 |
| | | | | | Superphosphate | 200 lbs. | 2 |
| | | | | | Straw | 2 T. | 24 |
| | | | | | Strawberry crates | 140 | 48 |
| | | | | | Contract picking | 140 crates | 112 |
| | | | | | Grading and crating | 140 crates | 28 |
| | | | | | Building expense | | 2 |
| | | | | | Equipment expense | | 6 |
| Corn | 400 | 400 | 1.25 bus. | Farm | Superphosphate | 4000 lbs. | 44 |
| | | | | | Twine | 20 lbs. | 3 |
| | | | | | Equipment expense | | 8 |
| Mixed clover hay | 110 | 120 | 30 lbs. Red clover | 9 | Limestone | 20 T. | 65 |
| | | | 10 lbs. Alsike | 2 | Equipment expense | | 6 |
| | | | 30 lbs. Alfalfa | 7 | | | |
| | | | 50 lbs. Orchard grass | 9 | | | |
| Japan clover hay | 9 | 10 | 8 lbs. Japan clover | 1 | Equipment expense | | 1 |
| Rye (seeding) | 48 | 120 | 18 bus. | 24 | Equipment expense | | 4 |
| Total | 1327 | 960 | | \$68 | Fertilizer and other materials | | \$349 |
| | | | | | Building expense | | 12 |
| | | | | | Equipment expense | | 28 |

TABLE 13. Budget for suggested system 2 (60-acre farm—1 man, 2 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|---|---|---|-------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 8 | 1200 | 80 | Corn Mixed clover hay Japan clover hay Corn stover | 128 bus. 18000 lbs. 2000 lbs. 8000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 800 lbs. 2400 lbs. | \$14 53 24 12 20 |
| Veals | 5 | 25 | 5 | Whole milk | 2400 lbs. | | | |
| Dairy calves | 2 | 20 | 2 | Whole milk Corn Mixed clover hay | 960 lbs. 2 bus. 400 lbs. | Bran and shorts Linseed meal Bldg. & miscel. expense | 60 lbs. 20 lbs. | 1 1 1 |
| Dairy heifers | 2 | 20 | 2 | Corn Mixed clover hay Corn stover | 4 bus. 1100 lbs. 1800 lbs. | Bran and shorts Bldg. & miscel. expense | 200 lbs. | 4 1 |
| Poultry | 90 | 360 | 27 | Corn | 106 bus. | Bran and shorts Meat scrap Baby chick feed Oyster shell Building expense Miscellaneous | 1800 lbs. 450 lbs. 180 lbs. 360 lbs. | 32 20 9 4 18 1 |
| Hogs | 2 | 20 | 4 | Corn | 28 bus. | Tankage Equipm't & miscel. exp. | 80 lbs. | 3 1 |
| Work stock | 2 | 90 | 10 | Corn Mixed clover hay Corn stover | 80 bus. 5500 lbs. 3000 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 7 4 14 4 |
| Total | | 1735 | 130 | Corn Whole milk Hay Corn stover | 348 bus. 3360 lbs. 27000 lbs. 12800 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$137 51 16 14 26 |

TABLE 13. Budget for suggested system 2 (60-acre farm—1 man, 2 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | |
|-------------------------------|------------|------------------|--------------|-------|-------------|
| | | Fed to Livestock | Used in Home | | Sales |
| | | | Amount | Value | |
| Dairy cows | 40000 lbs. | 3360 lbs. | (365 gal.) | \$66 | 33500 lbs. |
| Whole milk | 700 lbs. | | 3140 lbs. | 11 | 560 lbs. |
| Veals | 2 cows | | 140 lbs. | | 2 cull cows |
| Cull cows | | | | | |
| Pork | 400 lbs. | | 400 lbs. | 35 | |
| Poultry, Eggs | 810 doz. | 45 doz. set | 150 doz. | 38 | 615 doz. |
| Fryers | 360 lbs. | | 100 lbs. | 26 | 260 lbs. |
| Hens | 360 lbs. | | | | 360 lbs. |
| Total | | | | \$176 | \$1096 |

TABLE 13. Budget for suggested system 2 (60-acre farm—1 man, 2 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|-------|
| Crop (Section A) | | Crops (Section B) | |
| Livestock and livestock products (Section D) | \$610 | Seeds and plants | \$68 |
| Livestock products used in home (Section D) | 1096 | Fertilizer and other materials | 349 |
| Garden and truck | 176 | Building expense | 12 |
| | 150 | Equipment expense | 28 |
| Total | \$2032 | | |
| | | Livestock (Section C) | |
| | | Feeds purchased | 137 |
| | | Building expense | 51 |
| | | Equipment expense | 16 |
| | | Depreciation on work stock | 14 |
| | | Miscellaneous | 26 |
| Net return \$1220 | | General Farm | |
| | | fence expense | 36 |
| | | Automobile expense | 75 |
| | | Total | \$812 |

TABLE 14. Budget for suggested system 4 (80-acre farm—1 man, 3 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|-------------------|-------|------------|------------|------------|-------------|-------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 2 | 1900 lbs. | 558 bus. | 2 bus. | 1900 lbs. | \$190 |
| Corn, grain | 16 | 560 bus. | 11500 lbs. | | | |
| Corn, stover | 5 | 12000 lbs. | 12000 lbs. | | | |
| Soybean hay | 4 | 154 bus. | 27500 lbs. | | | |
| Wheat | 11 | Pasture | | 13.75 bus. | 140.25 bus. | 182 |
| Mixed clover hay | 11 | | | | | |
| Clover and grass | 22 | | | | | |
| Orchard and truck | 2 | | | | | |
| Lots | 4 | | | | | |
| Woodland | 4 | | | | | |
| Total | 8 | | | | | \$372 |

TABLE 14. Budget for suggested system 4 (80-acre farm—1 man, 3 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------|-------------|---------------|--|--------------------|---|-------------------------------|---------------------------|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 500 | 180 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 700 lbs. 13 yds. 8 lbs. | \$14 1 2 10 6 |
| Corn | 497 | 662 | 2 bus. | Farm | Superphosphate Twine Equipment expense | 5400 lbs. 10 lbs. | 59 2 12 |
| Soybean hay | 80 | 140 | 5 bus. | \$12 | Inoculation Equipment expense | | Farm 3 |
| Wheat | 165 | 242 | 13.75 bus. | Farm | Contract threshing Twine Equipment expense | 154 bus. 22 lbs. | 18 4 8 |
| Mixed clover hay | 121 | 132 | 33 lbs. Red clover 11 lbs. Alsike 23 lbs. Alfalfa 55 lbs. Orchard grass | 10 3 8 10 | Limestone Equipment expense | 22 T. | 72 7 |
| Total | 1363 | 1356 | | \$43 | Fertilizer and other materials Building expense Equipment expense | | \$172 10 36 |

TABLE 14. Budget for suggested system 4 (80-acre farm—1 man, 3 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|---|---|---|--------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 10 | 1500 | 100 | Corn Legume hay Corn stover | 160 bus. 25000 lbs. 10000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 1000 lbs. 3000 lbs. | \$18 66 30 15 25 |
| Veals | 6 | 30 | 6 | Whole milk | 2880 lbs. | | | |
| Dairy calves | 3 | 30 | 3 | Corn Legume hay Whole milk | 3 bus. 600 lbs. 1440 lbs. | Bran and shorts Linseed meal Bldg. & miscel. expense | 90 lbs. 30 lbs. | 2 1 1 |
| Dairy heifers | 3 | 30 | 3 | Corn Legume hay | 6 bus. 3000 lbs. | Bran and shorts Bldg. & miscel. expense | 300 lbs. | 5 2 |
| Sow and pigs | 1 | 80 | 16 | Corn | 112 bus. | Tankage Equipment expense Miscellaneous | 320 lbs. | 12 2 2 |
| Poultry | 135 | 540 | 40 | Corn | 159 bus. | Meat scrap Bran and shorts Baby chick feed Oyster shell Building expense Miscellaneous | 675 lbs. 2700 lbs. 270 lbs. 540 lbs. | 30 49 14 5 27 1 |
| Work stock | 3 | 135 | 15 | Corn Legume hay | 120 bus. 10500 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 10 6 21 5 |
| Total | | 2345 | 183 | Corn Corn stover Legume hay Whole milk | 560 bus. 10000 lbs. 39100 lbs. 4320 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$202 69 23 21 34 |

TABLE 14. Budget for suggested system 4 (80-acre farm—1 man, 3 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | |
|-------------------------------|------------|------------------|-------------------------|-------|---------------------|
| | | Fed to Livestock | Used in Home | | Sales |
| | | | Amount | Value | |
| Dairy cows | 50000 lbs. | 4320 lbs. | (365 gal.) 3140 lbs. | \$66 | 42540 lbs. \$893 |
| Whole milk | 840 lbs. | | | | 840 lbs. 67 |
| Veals | 3 cows | | | | 3 cows 72 |
| Cull cows | | | | | |
| Pork | 1600 lbs. | 62 doz. set | 500 lbs. | 44 | 1100 lbs. 96 |
| Poultry, Eggs | 1215 doz. | | 150 doz. | 38 | 1003 doz. 251 |
| Fryers | 540 lbs. | | 100 lbs. | 26 | 440 lbs. 114 |
| Hens | 540 lbs. | | | | 540 lbs. 97 |
| Total | | | | \$174 | \$1590 |

TABLE 14. Budget for suggested system 4 (80-acre farm—1 man, 3 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|-------|
| Crops (Section A) | | Crops (Section B) | \$43 |
| Livestock and livestock products (Section D) | \$372 | Seeds and plants | 172 |
| Livestock products used in home (Section D) | 174 | Fertilizer and other materials | 10 |
| Garden and truck | 150 | Building expense | 36 |
| Total | \$2286 | Equipment expense | |
| | | Livestock (Section C) | |
| | | Feeds purchased | 202 |
| | | Building expense | 63 |
| | | Equipment expense | 23 |
| | | Depreciation on work stock | 21 |
| | | Miscellaneous | 34 |
| Net return \$1552 | | General Farm | |
| | | Fence expense | 44 |
| | | Automobile expense | 80 |
| | | Total | \$734 |

TABLE 15. Budget for suggested system 5 (80-acre farm—1 man, 3 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|--------------------------|-------|------------|------------|---------|------------|--------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 4 | 3800 lbs. | | | 3800 lbs. | \$380 |
| Strawberries (harvested) | 4 | 286 crates | | | 286 crates | 840 |
| Strawberries (young) | 2 | | | | | |
| Corn, grain | 16 | 560 bus. | | 2 bus. | | |
| Corn, stover | 8 | 18400 lbs. | 558 bus | | | |
| Wheat | 8 | 112 bus. | 18400 lbs. | | | |
| Mixed clover hay | 8 | 20000 lbs. | 20000 lbs. | 10 bus. | 102 bus. | 133 |
| Japan clover hay | 4 | 8000 lbs. | 8000 lbs. | | | |
| Clover and grass | 16 | Pasture | Pasture | | | |
| Rye (Japan clover) | 2 | Pasture | Pasture | | | |
| Rye (cover crop) | 2 | | | | | |
| Orchard and truck | 2 | | | | | |
| Lots | 4 | | | | | |
| Woodland | 10 | | | | | |
| Total | | | | | | \$4353 |

TABLE 15. Budget for suggested system 5 (80-acre farm—1 man, 3 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------|-------------|---------------|---|------------------|---|---|---|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 1000 | 360 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 2000 lbs. 27 yds. 16 lbs. | \$40 1 4 20 6 |
| Strawberries | 540 | 270 | 9000 plants | \$32 | Superphosphate Straw Crates Contract picking Grading and crating Building expense Equipment expense | 400 lbs. 4 T. 280 280 crates 280 crates | 4 Farm 95 224 56 4 12 |
| Corn | 536 | 656 | 2 bus. | Farm | Superphosphate Twine Equipment expense | 4800 lbs. 16 lbs. | 53 3 12 |
| Wheat | 120 | 176 | 10 bus. | Farm | Contract threshing Twine Equipment expense | 112 bus. 16 lbs. | 13 3 6 |
| Mixed clover hay | 88 | 96 | 24 lbs. Red clover 8 lbs. Alsike 24 lbs. Alfalfa 40 lbs. Orchard grass | 7 2 6 7 | Limestone Equipment expense | 16 T. | 52 5 |
| Japan clover hay | 36 | 40 | 16 lbs. Japan clover | 2 | Equipment expense | | 2 |
| Rye (seeding) | 16 | 40 | 6 bus. | 8 | Equipment expense | | 1 |
| Total | 2332 | 1614 | | \$64 | Fertilizer and other materials Building expense Equipment expense | | \$548 24 44 |

TABLE 15. Budget for suggested system 5 (80-acre farm—1 man, 3 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|--|--|---|-----------------------|------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 6 | 900 | 60 | Corn Legume hay Corn stover | 96 bus. 15000 lbs. 6000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 600 lbs. 1800 lbs. | \$11 40 18 9 15 |
| Veals | 3 | 15 | 3 | Whole milk | 1440 lbs. | | | |
| Dairy calves | 2 | 20 | 2 | Corn Whole milk Legume hay | 2 bus. 960 lbs. 400 lbs. | Bran and shorts Linseed meal Bldg. & misc. expense | 60 lbs. 20 lbs. | 1 1 1 |
| Dairy heifers | 2 | 20 | 2 | Corn Legume hay | 4 bus. 2000 lbs. | Bran and shorts Bldg. & misc. expense | 200 lbs. | 4 1 |
| Sows and pigs | 2 | 160 | 32 | Corn Skim-milk | 208 bus. 8800 lbs. | Equipment expense Miscellaneous | | 3 4 |
| Poultry | 100 | 400 | 30 | Corn Skim-milk | 125 bus. 13000 lbs. | Oyster shell Baby chick feed Building expense Miscellaneous | 400 lbs. 200 lbs. | 4 10 20 1 |
| Work stock | 3 | 135 | 15 | Corn Legume hay | 120 bus. 10500 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 10 6 21 5 |
| Total | | 1645 | 143 | Corn Whole milk Skim-milk Legume hay Corn stover | 555 bus. 2400 lbs. 21800 lbs. 27900 lbs. 6000 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$71 49 18 21 26 |

TABLE 15. Budget for suggested system 5 (80-acre farm—1 man, 3 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposition of products | | | | |
|-------------------------------|----------------------------------|-------------------------|-------------------------|-------|---------------------------------------|-------------------|
| | | Fed to Livestock | Used in Home | | Sales | |
| | | | Amount | Value | Amount | Value |
| Dairy cows | 30000 lbs. 420 lbs. 2 cows | 2400 lbs. | (365 gal.) 3140 lbs. | \$66 | 1081 lbs. B. F. 420 lbs. 2 cows | \$411 34 48 |
| Whole milk | | | | | | |
| Veals | | | | | | |
| Cull cows | | | | | | |
| Pork | 3200 lbs. | | 500 lbs. | 44 | 2700 lbs. | 236 |
| Poultry, Eggs | 900 doz. | 50 doz. set | 150 doz. | 38 | 700 doz. | 175 |
| Fryers | 400 lbs. | | 100 lbs. | 26 | 300 lbs. | 78 |
| Hens | 400 lbs. | | | | 400 lbs. | 72 |
| Total | | | | \$174 | | \$1054 |

TABLE 15. Budget for suggested system 5 (80-acre farm—1 man, 3 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|-------|
| Crops (Section A) | | Crops (Section B) | |
| Livestock and livestock products (Section D) | \$1353 | Seeds and plants | \$64 |
| Livestock products used in home (Section D) | 1054 | Fertilizer and other materials | 548 |
| Garden and truck | 174 | Building expense | 24 |
| | 150 | Equipment expense | 44 |
| Total | \$2731 | Livestock (Section C) | |
| | | Feeds purchased | 71 |
| | | Building expense | 49 |
| | | Equipment expense | 18 |
| | | Depreciation on work stock | 21 |
| | | Miscellaneous | 26 |
| Net return \$1742 | | General Farm | 44 |
| | | Fence expense | 80 |
| | | Automobile expense | |
| | | Total | \$989 |

TABLE 16. Budget for suggested system 6 (100-acre farm—2 men, 4 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|-------------------|-------|------------|------------|-----------|------------|-------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 6 | 5700 lbs. | 697.5 bus. | 2.5 bus. | 5700 lbs. | \$570 |
| Corn, grain | 20 | 700 bus. | 13800 lbs. | | | |
| Corn, stover | 6 | 13800 lbs. | 19 bus. | | | |
| Wheat | 14 | 196 bus. | 6000 lbs. | 17.5 bus. | 159.5 bus. | 207 |
| Soybean hay | 2 | 6000 lbs. | 35000 lbs. | | | |
| Mixed clover hay | 14 | Pasture | Pasture | | | |
| Clover and grass | 28 | | | | | |
| Orchard and truck | 2.5 | | | | | |
| Lots | 4.5 | | | | | |
| Woodland | 9 | | | | | |
| Total | | | | | | \$777 |

TABLE 16. Budget for suggested system 6 (100-acre farm—2 men, 4 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------|-------------|---------------|--|--|--------------------------------|---|---------------------------------|
| | | | Amount | | Value | Kind | Amount |
| Tobacco | 1500 | 540 | | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 2100 lbs. 40 yds. 24 lbs. |
| Corn | 618 | 828 | 2.5 bus. | | Farm | Superphosphate Twine Equipment expense | 6800 lbs. 12 lbs. |
| Wheat | 210 | 308 | 17.5 bus. | | Farm | Contract threshing Twine Equipment expense | 196 bus. 28 lbs. |
| Soybean hay | 40 | 70 | 2.5 bus. | | \$6 | Inoculation Equipment expense | 28 T. |
| Mixed clover hay | 154 | 168 | 42 lbs. Red Clover 14 lbs. Alsike 42 lbs. Alfalfa 70 lbs. Orchard grass | | 13 4 10 13 | Limestone Equipment expense | Farm 2 91 8 |
| Total | 2522 | 1914 | | | \$46 | Fertilizer and other materials Building expense Equipment expense | \$246 30 44 |

TABLE 16. Budget for suggested system 6 (100-acre farm—2 men, 4 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|--|--|---|--|------------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 10 | 1500 | 100 | Corn Legume hay Corn stover | 160 bus. 25000 lbs. 10000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 1000 lbs. 3000 lbs. | \$18 66 30 30 15 25 |
| Veals | 6 | 30 | 6 | Whole milk | 2880 lbs. | | | |
| Dairy calves | 3 | 30 | 3 | Corn Legume hay Whole milk | 3 bus. 600 lbs. 1440 lbs. | Bran and shorts Linseed meal Bldg. & miscel. expense | 90 lbs. 30 lbs. | 2 1 1 |
| Dairy heifers | 3 | 30 | 3 | Corn Legume hay | 6 bus. 3000 lbs. | Bran and shorts Bldg. & miscel. expense | 300 lbs. | 5 2 |
| Sows and pigs | 2 | 160 | 32 | Corn | 224 bus. | Tankage Equipment expense Miscellaneous | 640 lbs. | 25 3 4 |
| Poultry | 140 | 560 | 42 | Corn Wheat | 145 bus. 19 bus. | Bran and shorts Meat scrap Baby chick feed Oyster shell Building expense Miscellaneous | 2800 lbs. 700 lbs. 32 280 lbs. 6 560 lbs. | 50 14 14 6 28 1 |
| Work stock | 4 | 180 | 20 | Corn Legume hay | 160 bus. 14000 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 14 8 28 7 |
| Total | | 2490 | 206 | Corn Whole milk Legume hay Corn stover Wheat | 698 bus. 4320 lbs. 40600 lbs. 10000 lbs. 19 bus. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$219 74 26 28 38 |

TABLE 16. Budget for suggested system 6 (100-acre farm—2 men, 4 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | | |
|-------------------------------|------------|------------------|-------------------------|-------|----------------------------------|-------------------|
| | | Fed to Livestock | Used in Home | | Sales | |
| | | | Amount | Value | Amount | Value |
| Dairy cows | 50000 lbs. | 4320 lbs. | (450 gal.) 3870 lbs. | \$81 | 41810 lbs. 840 lbs. 3 cows | \$878 67 72 |
| Whole milk | 840 lbs. | | | | | |
| Veals | 3 cows | | | | | |
| Cull cows | | | | | | |
| Pork | 3200 lbs. | | 600 lbs. | 52 | 2600 lbs. | 228 |
| Poultry, Eggs | 1260 doz. | 70 doz. set | 180 doz. | 45 | 1010 doz. | 252 |
| Fryers | 560 lbs. | | 125 lbs. | 32 | 435 lbs. | 113 |
| Hens | 560 lbs. | | | | 560 lbs. | 101 |
| Total | | | | \$210 | | \$1711 |

TABLE 16. Budget for suggested system 6 (100-acre farm—2 men, 4 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--|--------------------------------|-------|
| Crops (Section A) | | Crops (Section B) | \$46 |
| Livestock and livestock products (Section D) | | Seeds and plants | 236 |
| Livestock products used in home (Section D) | | Fertilizer and other materials | 30 |
| Garden and truck | | Building expense | 44 |
| | | Equipment expense | |
| Total | | Livestock (Section C) | 219 |
| | | Feeds purchased | 74 |
| | | Building expense | 26 |
| | | Equipment expense | 28 |
| | | Depreciation on work stock | 38 |
| | | Miscellaneous | |
| Net return \$2057 | | General Farm | 50 |
| | | Fence expense | 90 |
| | | Automobile expense | |
| | | Total | \$891 |

TABLE 17. Budget for suggested system 7 (100-acre farm—2 men, 4 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|--------------------------|-------|------------|------------|---------|------------|--------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 5 | 4750 lbs. | | | 4750 lbs. | \$475 |
| Strawberries (harvested) | 5 | 350 crates | | | 350 crates | 1050 |
| Strawberries (young) | 2.5 | | | | | |
| Corn, grain | 16 | 560 bus. | 558 bus. | 2 bus. | | |
| Corn, stover | 16 | 36800 lbs. | 36800 lbs. | | | |
| Wheat | 16 | 224 bus. | | 20 bus. | | |
| Mixed clover hay | 16 | 40000 lbs. | 40000 lbs. | | 204 bus. | 265 |
| Clover and grass | 5 | Pasture | Pasture | | | |
| Pasture mixture | 2.5 | Pasture | Pasture | | | |
| Rye (pasture mixture) | 2.5 | Pasture | Pasture | | | |
| Rye (cover crop) | 2.5 | | | | | |
| Orchard and truck | 4.5 | | | | | |
| Lots | 4.5 | | | | | |
| Woodland | 9 | | | | | |
| Total | | | | | | \$1790 |

TABLE 17. Budget for suggested system 7 (100-acre farm—2 men, 4 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|--------------------------|-------------|---------------|--|---------------------|--|---------------------------------------|---|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 1250 | 450 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 2500 lbs. 33 yds. 20 lbs. | \$50 2 5 25 8 |
| Strawberries | 675 | 338 | 11250 plants | \$39 | Superphosphate Straw Strawberry crates Contract picking Grading and crating Building expense Equipment expense | 500 lbs. 5 T. 350 350 crates | 5 Farm 119 280 70 2 8 |
| Corn | 640 | 640 | 2 bus. | Farm | Superphosphate Twine Equipment expense | 6400 lbs. 32 lbs. | 70 15 13 |
| Wheat | 240 | 352 | 20 bus. | Farm | Contract threshing Twine Equipment expense | 224 bus. 32 lbs. | 27 5 13 |
| Mixed clover hay | 176 | 192 | 48 lbs. Red clover 16 lbs. Alsike 48 lbs. Alfalfa 80 lbs. Orchard grass | 14 4 11 14 | Limestone Equipment expense | 32 T. | 104 10 |
| Rye (Pasture mixture) | 12 | 25 | 3.75 bus. Rye 12 lbs. Japan clover 12 lbs. Orchard grass 8 lbs. Redtop | 5 1 2 2 | Equipment expense | | 1 |
| Rye (cover crop) | 10 | 25 | 3.75 bus. Rye | 5 | Equipment expense | | 1 |
| Total | 3003 | 2016 | | \$97 | Fertilizer and other materials Building expense Equipment expense | | \$742 27 54 |

TABLE 17. Budget for suggested system 7 (100-acre farm—2 men, 4 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|---|---|---|--------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 10 | 1500 | 100 | Corn Legume hay Corn stover | 180 bus. 25000 lbs. 10000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 1000 lbs. 3000 lbs. | \$18 66 30 15 25 |
| Veals | 6 | 30 | 6 | Whole milk | 2830 lbs. | | | |
| Dairy calves | 3 | 30 | 3 | Corn Whole milk Legume hay | 3 bus. 1440 lbs. 600 lbs. | Bran and shorts Linseed meal Bldg. & miscel. expense | 90 lbs. 30 lbs. | 2 1 1 |
| Dairy heifers | 3 | 30 | 3 | Corn Legume hay Corn stover | 6 bus. 2400 lbs. 1200 lbs. | Bran and shorts Bldg. & miscel. expense | 300 lbs. | 5 2 |
| Sow and pigs | 1 | 80 | 16 | Corn | 112 bus. | Tankage Equipment expense Miscellaneous | 320 lbs. | 12 2 2 |
| Poultry | 100 | 400 | 30 | Corn | 118 bus. | Bran and shorts Meat scrap Baby chick feed Oyster shell Building expense Miscellaneous | 2000 lbs. 500 lbs. 200 lbs. 200 lbs. 400 lbs. | 36 22 10 4 20 1 |
| Work stock | 4 | 130 | 20 | Corn Legume hay Corn stover | 160 bus. 12000 lbs. 4000 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 14 8 28 7 |
| Total | | 2250 | 178 | Corn Whole milk Legume hay Corn stover | 559 bus. 4320 lbs. 40000 lbs. 15200 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$176 66 25 28 36 |

TABLE 17. Budget for suggested system 7 (100-acre farm—2 men, 4 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposition of Products | | | |
|-------------------------------|------------|-------------------------|-------------------------|-------|------------|
| | | Fed to Livestock | Used in Home | | Sales |
| | | | Amount | Value | |
| Dairy cows | 50000 lbs. | 4320 lbs. | (450 gal.) 3870 lbs. | \$81 | 41810 lbs. |
| Whole milk | 840 lbs. | | | | 840 lbs. |
| Veals | 3 cows | | | | 3 cows |
| Cull cows | 1600 lbs. | | 600 lbs. | 52 | 1000 lbs. |
| Pork | 900 doz. | 50 doz. set | 180 doz. | 45 | 670 doz. |
| Poultry, Eggs | 400 lbs. | | 125 lbs. | 32 | 275 lbs. |
| Fryers | 400 lbs. | | | | 400 lbs. |
| Hens | | | | | |
| Total | | | | \$210 | \$1417 |

TABLE 17. Budget for suggested system 7 (100-acre farm—2 men, 4 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | Expenses | |
|--|--------------------------------|--------|
| Crops (Section A) | Crops (Section B) | \$97 |
| Livestock and livestock products (Section D) | Seeds and plants | 742 |
| Livestock products used in home (Section D) | Fertilizer and other materials | 27 |
| Garden and truck | Building expense | 54 |
| | Equipment expense | |
| Total | Livestock (Section C) | 176 |
| | Feeds purchased | 66 |
| | Building expense | 25 |
| | Equipment expense | 28 |
| | Depreciation on work stock | 36 |
| | Miscellaneous | |
| Net return \$2276 | General Farm | 50 |
| | Fence expense | 90 |
| | Automobile expense | |
| | Total | \$1391 |

TABLE 18. Budget for suggested system 8 (150-acre farm—2 men, 4 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|-------------------|-------|------------|------------|-----------|------------|-------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 5 | 4750 lbs. | 732 4 bus. | 2.6 bus. | 4750 lbs. | \$475 |
| Corn, grain | 21 | 735 bus. | 48300 lbs. | | | |
| Corn, stover | 21 | 364 bus. | | | | |
| Wheat | 26 | 65000 lbs. | 65000 lbs. | 32.5 bus. | 331.5 bus. | 431 |
| Mixed clover hay | 26 | Pasture | Pasture | | | |
| Clover and grass | 52 | | | | | |
| Orchard and truck | 3 | | | | | |
| Lots | 6 | | | | | |
| Woodland | 11 | | | | | |
| Total | | | | | | \$906 |

TABLE 18. Budget for suggested system 3 (150-acre farm—2 men, 4 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------|-------------|---------------|---|-----------------------|---|---------------------------------|---------------------------|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 1250 | 450 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 2500 lbs. 33 yds. 20 lbs. | \$50 2 5 25 8 |
| Corn | 840 | 840 | 2.6 bus. | Farm | Superphosphate Twine Equipment expense | 8400 lbs. 42 lbs. | 92 7 16 |
| Wheat | 390 | 572 | 32.5 bus. | Farm | Contract threshing Twine Equipment expense | 364 bus. 52 lbs. | 44 8 20 |
| Mixed clover hay | 286 | 312 | 78 lbs. Red clover 26 lbs. Alsike 78 lbs. Alfalfa 130 lbs. Orchard grass | \$23 6 18 23 | Limestone Equipment expense | 52 T. | 169 16 |
| Total | 2766 | 2174 | | \$70 | Fertilizer and other materials Building expense Equipment expense | | \$377 25 60 |

TABLE 18. Budget for suggested system 8 (150-acre farm—2 men, 4 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Home Grown Feeds | | | Purchased Feed and Other Expenses | | |
|---------------|------------------|-------------|---------------|---|--------------------------------------|--------------------------------|
| | Num- ber | Man Hrs. | Horse Hrs. | Kind | Amount | Value |
| Dairy cows | 12 | 1800 | 120 | Corn Legume hay Corn stover | 192 bus. 30000 lbs. 12000 lbs. | \$22 79 36 |
| Veals | 8 | 40 | 8 | Whole milk | 3840 lbs. | 18 |
| Dairy calves | 3 | 30 | 3 | Skim-milk Whole milk Legume hay | 3600 lbs. 150 lbs. 600 lbs. | 30 |
| Dairy heifers | 3 | 30 | 3 | Corn Legume hay | 6 bus. 3000 lbs. | 1 |
| Sheep | 50 | 300 | 75 | Corn Legume hay | 56 bus. 16250 lbs. | 5 2 |
| Sow and pigs | 1 | 80 | 16 | Corn Skim-milk | 104 bus. 4400 lbs. | 25 15 |
| Poultry | 170 | 680 | 51 | Corn Skim-milk | 212 bus. 22100 lbs. | 1 2 |
| Work stock | 4 | 180 | 20 | Corn Legume hay | 160 bus. 14000 lbs. | 17 7 34 2 |
| | | | | Building expense Equipment expense Depreciation Miscellaneous | 340 lbs. 680 lbs. | 14 8 28 7 |
| Total | 3140 | 296 | | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$155 101 28 28 43 |

TABLE 13. Budget for suggested system 3 (150-acre farm—2 men, 4 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | | |
|-------------------------------|------------|------------------|--------------|-------|-----------------|--------|
| | | Fed to Livestock | Used in Home | | Sales | |
| | | | Amount | Value | | |
| Dairy cows | 60000 lbs. | 3990 lbs. | (600 gal.) | | 2288 lbs. B. F. | \$869 |
| Whole milk | 1120 lbs. | | 5160 lbs. | \$108 | 1120 lbs. | 90 |
| Veals | 3 cows | | | | 3 cows | 72 |
| Cull cows | | | | | | |
| Sheep | 3500 lbs. | | | | 3500 lbs. | 350 |
| Lambs | 550 lbs. | | | | 550 lbs. | 16 |
| Old sheep | 350 lbs. | | | | 350 lbs. | 126 |
| Wool | | | | | | |
| Pork | 1600 lbs. | | 800 lbs. | 70 | 800 lbs. | 70 |
| Poultry, Eggs | 1350 doz. | 75 doz. set | 225 doz. | 56 | 1050 doz. | 262 |
| Fryers | 600 lbs. | | 175 lbs. | 46 | 425 lbs. | 110 |
| Hens | 600 lbs. | | | | 600 lbs. | 108 |
| Total | | | | \$280 | | \$2073 |

TABLE 18. Budget for suggested system 8 (150-acre farm—2 men, 4 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|--------|
| Crops (Section A) | | Crops (Section B) | |
| Livestock and livestock products (Section D) | \$306 | Seeds and plants | \$70 |
| Livestock products used in home (Section D) | 2073 | Fertilizer and other materials | 377 |
| Garden and truck | 280 | Building expense | 25 |
| | 300 | Equipment expense | 60 |
| Total | \$3559 | Livestock (Section C) | |
| | | Feeds purchased | 155 |
| | | Building expense | 101 |
| | | Equipment expense | 28 |
| | | Depreciation on work stock | 28 |
| | | Miscellaneous | 43 |
| Net return \$2499 | | General Farm | |
| | | Fence expense | 68 |
| | | Automobile expense | 105 |
| | | Total | \$1060 |

TABLE 19. Budget for suggested system 9 (150-acre farm—2 men, 4 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|--------------------------|-------|------------|-------------|-----------|------------|--------|
| | | | Feed | Seed | Amount | Value |
| Tomatoes | 5 | 875 bus. | | | 875 bus. | \$350 |
| Strawberries (harvested) | 5 | 350 crates | | | 350 crates | 1050 |
| Strawberries (young) | 2.5 | | | | | |
| Corn, grain | 22 | 770 bus. | 767.25 bus. | 2.75 bus. | | |
| Corn, stover | 22 | 50600 lbs. | 50600 lbs. | | | |
| Wheat | 24.5 | 343 bus. | | | | |
| Mixed clover hay | 22 | 55000 lbs. | 55000 lbs. | 30.5 bus. | | |
| Clover and grass | 49 | Pasture | Pasture | | 312.5 bus. | 406 |
| Rye (cover crop) | 2.5 | | | | | |
| Orchard and truck | 2 | | | | | |
| Lots | 6 | | | | | |
| Woodland | 11 | | | | | |
| Total | | | | | | \$1806 |

TABLE 19. Budget for suggested system 9 (150-acre farm—2 men, 4 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|--------------------------------------|-------------|---------------|---|-----------------------|--|---|---|
| | | | Amount | Value | Kind | Amount | Value |
| Tomatoes | 800 | 600 | 10 oz. | \$2 | Superphosphate Canvas Equipment expense | 2500 lbs. 30 yds. | \$28 2 3 |
| Strawberries | 675 | 338 | 11250 plants | | Superphosphate Straw Strawberry crates Contract picking Grading and crating Building expense Equipment expense | 500 lbs. 5 T. 350 350 crates 350 crates | 6 Farm 119 280 70 2 8 |
| Corn | 880 | 880 | 2.75 bus. | Farm | Superphosphate Twine Equipment expense | 8800 lbs. 44 lbs. | 97 7 16 |
| Wheat | 368 | 539 | 30.5 bus. | Farm | Contract threshing Twine Equipment expense | 343 bus. 49 lbs. | 41 8 18 |
| Mixed clover hay | 242 | 264 | 66 lbs. Red clover 22 lbs. Alsike 65 lbs. Alfalfa 110 lbs. Orchard grass | \$20 6 15 20 | Limestone Equipment expense | 44 T. | 143 15 |
| Pasture mixture (Seeded in wheat) | 2.5 | | 12 lbs. Japan clover 12 lbs. Orchard grass 8 lbs. Redtop | 1 2 2 | Equipment expense | | 1 |
| Rye (cover crop) | 10 | 25 | 3.75 bus. Rye | 5 | | | |
| Total | 2978 | 2646 | | \$112 | Fertilizer and other materials Building expense Equipment expense | | \$801 2 66 |

TABLE 19. Budget for suggested system 9 (150-acre farm—2 men, 4 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|---|---|---|--------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 15 | 2250 | 150 | Corn Legume hay Corn stover | 240 bus. 37500 lbs. 15000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 1500 lbs. 4500 lbs. | \$27 99 45 22 38 |
| Veals | 10 | 50 | 10 | Whole milk | 4800 lbs. | | | |
| Dairy calves | 4 | 40 | 4 | Corn Whole milk Legume hay | 4 bus. 1920 lbs. 800 lbs. | Bran and shorts Linseed meal Bldg. & miscl. expense | 120 lbs. 40 lbs. | 2 1 2 |
| Dairy heifers | 4 | 40 | 4 | Corn Legume hay Corn stover | 8 bus. 3600 lbs. 800 lbs. | Bran and shorts Building expense Miscellaneous | 400 lbs. | 7 2 1 |
| Sows and pigs | 2 | 160 | 32 | Corn | 224 bus. | Tankage Equipment expense Miscellaneous | 640 lbs. | 25 3 4 |
| Poultry | 110 | 440 | 33 | Corn | 130 bus. | Bran and shorts Meat scrap Baby chick feed Oyster shell Building expense Miscellaneous | 2200 lbs. 550 lbs. 220 lbs. 440 lbs. | 40 25 11 4 22 1 |
| Work stock | 4 | 180 | 20 | Corn Legume hay Corn stover | 160 bus. 13100 lbs. 1800 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 14 8 28 7 |
| Total | | 3220 | 259 | Corn Whole milk Legume hay Corn stover | 766 bus. 6720 lbs. 55000 lbs. 17600 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$241 84 33 28 52 |

TABLE 19. Budget for suggested system 9 (150-acre farm—2 men, 4 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | |
|-------------------------------|------------|------------------|-------------------------|-------|-----------------------------------|
| | | Fed to Livestock | Used in Home | | Sales |
| | | | Amount | Value | |
| Dairy cows | 75000 lbs. | 6720 lbs. | (600 gal.) 5160 lbs. | \$108 | 63120 lbs. 1400 lbs. 4 cows |
| Whole milk | 1400 lbs. | | | | 112 96 |
| Veals | 4 cows | | | | 210 |
| Cull cows | 3200 lbs. | | 800 lbs. | 70 | 2400 lbs. |
| Pork | 990 doz. | 55 doz. set | 225 doz. | 56 | 710 doz. |
| Poultry, Eggs | 440 lbs. | | 175 lbs. | 46 | 285 lbs. |
| Fryers | 440 lbs. | | | | 69 |
| Hens | | | | | 79 |
| Total | | | | \$280 | \$2070 |

TABLE 19. Budget for suggested system 9 (150-acre farm—2 men, 4 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|--------|
| Crops (Section A) | | Crops (Section B) | |
| Livestock and livestock products (Section D) | | Seeds and plants | \$112 |
| Livestock products used in home (Section D) | | Fertilizer and other materials | 801 |
| Garden and truck | | Building expense | 2 |
| | | Equipment expense | 66 |
| Total | | Livestock (Section C) | |
| | | Feeds purchased | 241 |
| | | Building expense | 84 |
| | | Equipment expense | 33 |
| | | Depreciation on work stock | 28 |
| | | Miscellaneous | 52 |
| Net return | \$2364 | General Farm | 68 |
| | | Fence expenses | 105 |
| | | Automobile expenses | |
| | | Total | \$1592 |

TABLE 20. Budget for suggested system 10 (200-acre farm—3 men, 6 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|-----------------------|-------|------------|-------------|-----------|-----------|--------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 10 | 9500 lbs. | 1149.6 bus. | 5.4 bus. | 9500 lbs. | \$950 |
| Corn, grain | 33 | 1155 bus. | 6900 lbs. | | | |
| Corn, stover | 3 | 6900 lbs. | 49 T. | | | |
| Corn, silage | 7 | 49 T. | | | | |
| Wheat | 20 | 280 bus. | | | | |
| Mixed clover hay | 25 | 62500 lbs. | 62500 lbs. | 25.0 bus. | 255 bus. | 332 |
| Rye (pasture mixture) | 10 | Pasture | Pasture | | | |
| Clover and grass | 65 | Pasture | Pasture | | | |
| Orchard and truck | 5 | | | | | |
| Lots | 7 | | | | | |
| Woodland | 18 | | | | | |
| Total | | | | | | \$1282 |

TABLE 20. Budget for suggested system 10 (200-acre farm—3 men, 6 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------------------------|-------------|---------------|--|------------------------|---|---------------------------------|------------------------------|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 2500 | 900 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 5000 lbs. 67 yds. 40 lbs. | \$100 3 10 50 15 |
| Corn | 930 | 1380 | 4.12 bus. | Farm | Superphosphate Twine Equipment expense | 10600 lbs. 6 lbs. | 117 1 25 |
| Silage | 336 | 364 | 1.25 bus. | Farm | Superphosphate Filling costs Building expense Equipment expense | 1400 lbs. | 15 16 14 10 |
| Wheat | 300 | 440 | 25 bus. | Farm | Contract threshing Twine Equipment expense | 280 bus. 40 lbs. | 34 6 15 |
| Mixed clover hay ¹ | 268 | 295 | 60 lbs. Red clover 20 lbs. Alsike 60 lbs. Alfalfa 100 lbs. Orchard grass | \$18 5 14 18 | Limestone Equipment expense | 40 T. | 130 15 |
| Rye (pasture mixture) ² | 30 | 15 | 15 bus. Rye 50 lbs. Japan clover 50 lbs. Orchard grass 30 lbs. Redtop 40 lbs. Sweet clover | 21 5 9 6 7 | Equipment expense | | 3 |
| Total | 4364 | 3394 | | \$103 | Fertilizer and other materials Building expense Equipment expense | | \$432 64 83 |

¹ Five acres harvested second year. Requirements for th is acreage for harvesting only. ² Rye seeded in standing corn.

TABLE 20. Budget for suggested system 10 (200-acre farm—3 men, 6 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|---|---|--|---------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 16 | 2400 | 160 | Corn Legume hay Silage | 256 bus. 28800 lbs. 72000 lbs. | Cottonseed meal Building expense Equipment expense Miscellaneous | 3200 lbs. | \$70 48 24 40 |
| Veals | 10 | 50 | 10 | Whole milk | 4800 lbs. | | | |
| Dairy calves | 4 | 40 | 4 | Corn Whole milk Legume hay | 4 bus. 1920 lbs. 800 lbs. | Bran and shorts Linseed meal Bldg. & misc. expense | 120 lbs. 40 lbs. | 2 1 4 |
| Dairy heifers | 4 | 40 | 4 | Corn Legume hay Silage | 8 bus. 3000 lbs. 1500 lbs. | Bran and shorts Building expense Miscellaneous | 400 lbs. | 7 2 1 |
| Sheep | 60 | 360 | 90 | Corn Legume hay Silage | 30 bus. 12000 lbs. 24000 lbs. | Oats Bran and shorts Linseed meal Building expense Miscellaneous | 45 bus. 1440 lbs. 480 lbs. | 1 29 26 14 18 |
| Sows and pigs | 3 | 240 | 48 | Corn | 336 bus. | Tankage Equipment expense Miscellaneous | 960 lbs. | 1 37 5 7 |
| Poultry | 240 | 960 | 72 | Corn | 283 bus. | Meat scrap Bran and shorts Baby chick feed Oyster shell Building expense Miscellaneous | 1200 lbs. 4800 lbs. 480 lbs. 960 lbs. | 54 86 24 10 48 2 |
| Work stock | 6 | 270 | 30 | Corn Legume hay Corn stover | 240 bus. 17900 lbs. 6200 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 21 12 42 10 |
| Total | | 4360 | 418 | Corn Whole milk Legume hay Silage Corn stover | 1157 bus. 6720 lbs. 62500 lbs. 97500 lbs. 6200 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$360 138 41 42 62 |

TABLE 20. Budget for suggested system 10 (200-acre farm—3 men, 6 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | |
|-------------------------------|------------|------------------|-------------------------|-------|------------|
| | | Fed to Livestock | Used in Home | | Sales |
| | | | Amount | Value | |
| Dairy cows | 90000 lbs. | 6720 lbs. | (300 gal.) 6880 lbs. | \$144 | 76400 lbs. |
| Whole milk | 1400 lbs. | | | | 1400 lbs. |
| Veals | 4 cows | | | | 4 cows |
| Cull cows | 4800 lbs. | | 900 lbs. | 79 | 3900 lbs. |
| Pork | 4200 lbs. | | | | 4200 lbs. |
| Sheep, Lambs | 660 lbs. | | | | 660 lbs. |
| Old sheep | 420 lbs. | | | | 420 lbs. |
| Wool | 2160 doz. | 120 doz. set | 300 doz. | 75 | 1740 doz. |
| Poultry, Eggs | 960 lbs. | | 225 lbs. | 58 | 735 lbs. |
| Fryers | 960 lbs. | | | | 960 lbs. |
| Hens | | | | | |
| Total | | | | \$356 | \$3533 |

TABLE 21. Budget for suggested system 11 (200-acre farm—3 men, 6 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Farm Use | | Sales | |
|--------------------------|-------|----------|------|-------------|--------|
| | | Feed | Seed | Amount | Value |
| Tobacco | 4 | | | 3800 lbs. | \$380 |
| Sweetpotatoes | 4 | | | 504 bus. | 252 |
| Strawberries (harvested) | 8 | | | 560 crates | 1680 |
| Strawberries (young) | 4 | | | | |
| Corn, grain | 35 | | | | |
| Corn, stover | 25 | | | | |
| Wheat | 25 | | | | |
| Mixed clover hay | 29 | | | | |
| Clover and grass | 29 | | | | |
| Pasture mixture | 30 | | | | |
| Rye (mixed clover) | 4 | | | | |
| Rye (cover crop) | 4 | | | | |
| Orchard and truck | 4 | | | | |
| Lots | 5 | | | | |
| Woodland | 7 | | | | |
| | 16 | | | | |
| Total | | | | 318.75 bus. | 414 |
| | | | | | \$2726 |

TABLE 21. Budget for suggested system 11 (200-acre farm—3 men, 6 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------|-------------|---------------|---|-----------------------|---|---|---|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 1000 | 360 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 2000 lbs. 27 yds. 16 lbs. | \$40 1 4 20 6 |
| Sweetpotatoes | 560 | 400 | 15 bus. | 6 Farm | Fertilizer (2-10-12) Manure Corrosive sublimate Equipment expense | 1000 lbs. 6 T. 8 ozs. | 18 Farm 1 6 |
| Strawberries | 1080 | 540 | 18000 plants | \$63 | Superphosphate Strawberry crates Contract picking Grading and crating Building expense Equipment expense | 800 lbs. 8 T. 560 560 crates 560 crates | 9 Farm 190 448 112 4 12 |
| Corn | 1270 | 1420 | 4.4 bus. | Farm | Superphosphate Twine Equipment expense | 14000 lbs. 50 lbs. | 154 8 26 |
| Wheat | 375 | 550 | 31.25 bus. | Farm | Contract threshing Twine Equipment expense | 350 bus. 50 lbs. | 42 8 19 |
| Mixed clover hay | 319 | 348 | 87 lbs. Red clover 29 lbs. Alsike 87 lbs. Alfalfa 145 lbs. Orchard grass | \$26 7 20 26 | Limestone Equipment expense | 58 T. | 188 17 |
| Pasture mixture | 40 | 100 | 50 lbs. Japan clover 50 lbs. Orchard grass 30 lbs. Redtop 40 lbs. Sweet clover | 5 9 6 7 | Equipment expense | | 2 |
| Rye (seeding) | 32 | 80 | 12 bus. | 17 | Equipment expense | | 1 |
| Total | 4676 | 3798 | | \$186 | Fertilizer and other materials Building expense Equipment expense | | \$1223 24 89 |

TABLE 21. Budget for suggested system 11 (200-acre farm—3 men, 6 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|--|---|---|---------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 20 | 3000 | 200 | Corn Legume hay Corn stover | 320 bus. 50000 lbs. 20000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 2000 lbs. 6000 lbs. | \$36 132 60 30 50 |
| Veals | 14 | 70 | 14 | Whole milk | 6720 lbs. | | | |
| Dairy calves | 5 | 50 | 5 | Corn Whole milk Legume hay | 5 bus. 2400 lbs. 1000 lbs. | Bran and shorts Linseed meal Bldg. & misc. expense | 150 lbs. 50 lbs. | 3 2 2 |
| Dairy heifers | 5 | 50 | 5 | Corn Legume hay | 10 bus. 5000 lbs. | Bran and shorts Building expense Miscellaneous | 500 lbs. | 9 2 1 |
| Sows and pigs | 3 | 240 | 48 | Corn | 336 bus. | Tankage Equipment expense Miscellaneous | 960 lbs. | 37 3 4 |
| Poultry | 260 | 1040 | 78 | Corn | 306 bus. | Bran and shorts Meat scrap Baby chick feed Oyster shell Building expense Miscellaneous | 5200 lbs. 1300 lbs. 520 lbs. 1040 lbs. | 94 58 26 10 52 3 |
| Work stock | 6 | 270 | 30 | Corn Legume hay Corn stover | 240 bus. 16500 lbs. 3000 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 21 12 42 10 |
| Total | | 4720 | 380 | Corn Whole milk Legume hay Corn stover | 1217 bus. 9120 lbs. 72500 lbs. 23000 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$407 136 45 42 69 |

TABLE 21. Budget for suggested system 11 (200-acre farm—3 men, 6 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Fed to Livestock | Disposal | | |
|-------------------------------|-------------|------------------|-------------------------|-------|------------|
| | | | Used in Home | | Sales |
| | | | Amount | Value | |
| Dairy cows | 100000 lbs. | 9120 lbs. | (800 gal.) 6880 lbs. | \$144 | 84000 lbs. |
| Whole milk | 1960 lbs. | | | | 1960 lbs. |
| Veals | 5 cows | | | | 5 cows |
| Cull cows | 4800 lbs. | | 900 lbs. | 79 | 3900 lbs. |
| Pork | 2340 doz. | | 300 doz. | 75 | 1910 doz. |
| Poultry, Eggs | 1040 lbs. | 130 doz. set | 225 lbs. | 58 | 815 lbs. |
| Fryers | 1040 lbs. | | | | 1040 lbs. |
| Hens | | | | | |
| Total | | | | \$356 | \$3259 |

TABLE 21. Budget for suggested system 11 (200-acre farm—3 men, 6 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|--------|
| Crops (Section A) | | Crops (Section B) | \$136 |
| Livestock and livestock products (Section D) | \$2736 | Seeds and plants | 1223 |
| Livestock products used in home (Section D) | 3259 | Fertilizer and other materials | 24 |
| Garden and truck | 356 | Building expense | 89 |
| | 400 | Equipment expense | |
| Total | \$6741 | Livestock (Section C) | 407 |
| | | Feeds purchased | 136 |
| | | Building expense | 45 |
| | | Equipment expense | 42 |
| | | Depreciation on work stock | 69 |
| | | Miscellaneous | |
| Net return \$4320 | | General Farm | 80 |
| | | Fence expense | 120 |
| | | Automobile expense | |
| | | Total | \$2421 |

TABLE 22. Budget for suggested system 12 (300-acre farm—3 men, 7 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|--------------------|-------|-------------|-------------|-----------|------------|--------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 7 | 6650 lbs. | 1569.4 bus. | 5.6 bus. | 6650 lbs. | \$665 |
| Corn, grain | 45 | 1575 bus. | 43700 lbs. | 32.5 bus. | 331.5 bus. | 431 |
| Corn, stover | 19 | 43700 lbs. | | | | |
| Wheat | 26 | 364 bus. | | | | |
| Mixed clover hay | 52 | 130000 lbs. | 130000 lbs. | | | |
| Clover and grass | 104 | Pasture | Pasture | | | |
| Rye (mixed clover) | 26 | Pasture | Pasture | | | |
| Orchard and truck | 6 | | | | | |
| Lots | 10 | | | | | |
| Woodland | 24 | | | | | |
| Total | | | | | | \$1096 |

TABLE 22. Budget for suggested system 12 (300-acre farm—3 men, 7 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|----------------------------|-------------|---------------|---|------------------------|---|---------------------------------|-----------------------|
| | | | Amount | Value | Kind | Amount | Value |
| Tobacco | 1750 | 630 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 3500 lbs. 47 yds. 28 lbs. | \$70 7 35 10 |
| Corn | 1462 | 1852 | 5.6 bus. | Farm | Superphosphate Twine Equipment expense | 18000 lbs. 38 lbs. | 198 6 34 |
| Wheat | 390 | 572 | 32.5 bus. | Farm | Contract threshing Twine Equipment expense | 364 bus. 52 lbs. | 44 8 20 |
| Mixed clover hay | 572 | 624 | 156 lbs. Red clover 52 lbs. Alsike 156 lbs. Alfalfa 260 lbs. Orchard grass | \$47 13 36 29 | Limestone Equipment expense | 104 T. | 338 31 |
| Rye (seeding) ¹ | 52 | 39 | 39 bus. | 55 | Equipment expense | | 8 |
| Total | 4226 | 3717 | | \$193 | Fertilizer and other materials Building expense Equipment expense | | \$673 35 103 |

¹ Seeded in standing corn.

TABLE 22. Budget for suggested system 12 (300-acre farm—3 men, 7 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|--|---|---|----------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 25 | 3750 | 250 | Corn Legume hay Corn stover | 400 bus. 62500 lbs. 25000 lbs. | Bran and shorts Cottonseed meal Building expense Equipment expense Miscellaneous | 2500 lbs. 7500 lbs. | \$45 165 75 38 62 |
| Veals | 17 | 85 | 17 | Whole milk | 8160 lbs. | | | |
| Dairy calves | 6 | 60 | 6 | Corn Whole milk Legume hay | 6 bus. 2880 lbs. 1200 lbs. | Bran and shorts Linseed meal Building expense Miscellaneous | 180 lbs. 60 lbs. | 3 2 2 1 |
| Dairy heifers | 6 | 60 | 6 | Corn Legume hay | 12 bus. 6000 lbs. | Bran and shorts Building expense Miscellaneous | 600 lbs. | 11 3 3 1 |
| Sheep | 120 | 720 | 180 | Corn Legume hay | 180 bus. 35000 lbs. | Linseed meal Building expense Miscellaneous | 300 lbs. | 9 36 2 |
| Sows and pigs | 3 | 240 | 48 | Corn | 336 bus. | Tankage Equipment expense Miscellaneous | 960 lbs. | 37 5 7 |
| Poultry | 300 | 1200 | 90 | Corn | 354 bus. | Bran and shorts Meat scrap Baby chick feed Oyster shell Building expense Miscellaneous | 6000 lbs. 1500 lbs. 600 lbs. 1200 lbs. | 108 93 30 12 60 3 |
| Work stock | 7 | 315 | 35 | Corn Legume hay Corn stover | 280 bus. 21000 lbs. 7000 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 24 14 49 12 |
| Total | | 6310 | 602 | Corn Whole milk Legume hay Corn stover | 1538 bus. 11040 lbs. 123700 lbs. 32000 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$490 200 57 49 88 |

TABLE 22. Budget for suggested system 12 (300-acre farm—3 men, 7 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Disposal | | | |
|-------------------------------|-------------|------------------|-------------------------|-------|-------------|
| | | Fed to Livestock | Used in Home | | Sales |
| | | | Amount | Value | |
| Dairy cows | 125000 lbs. | 11040 lbs. | (900 gal.) 7740 lbs. | \$163 | 106220 lbs. |
| Whole milk | 2380 lbs. | | | | 2380 lbs. |
| Veals | 6 cows | | | | 6 cows |
| Cull cows | 8400 lbs. | | | | 8400 lbs. |
| Sheep, Lambs | 1320 lbs. | | | | 1320 lbs. |
| Old sheep | 840 lbs. | | | | 840 lbs. |
| Wool | 4800 lbs. | | 1000 lbs. | 88 | 3800 lbs. |
| Pork | 2700 doz. | | 350 doz. | 88 | 2200 doz. |
| Poultry, Eggs | 1200 lbs. | 150 doz. set | 250 lbs. | 65 | 950 lbs. |
| Fryers | 1200 lbs. | | | | 1200 lbs. |
| Hens | | | | | |
| Total | | | | \$404 | \$5092 |

TABLE 22. Budget for suggested system 12 (300-acre farm—3 men, 7 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|--------|
| Crops (Section A) | | Crops (Section B) | \$198 |
| Livestock and livestock products (Section D) | \$1096 | Seeds and plants | 673 |
| Livestock products used in home (Section D) | 5092 | Fertilizer and other materials | 35 |
| Garden and truck | 404 | Building expense | 103 |
| | 450 | Equipment expense | |
| Total | \$7042 | Livestock (Section C) | 490 |
| | | Feeds purchased | 200 |
| | | Building expense | 57 |
| | | Equipment expense | 49 |
| | | Depreciation on work stock | 38 |
| | | Miscellaneous | |
| Net return \$4924 | | General Farm | 90 |
| | | Fence expense | 135 |
| | | Automobile expense | |
| | | Total | \$2118 |

TABLE 23. Budget for suggested system 13 (300-acre farm—3 men, 7 horses)
Section A. Crops: Acreage, production and disposition

| Crop | Acres | Production | Farm Use | | Sales | |
|--------------------------|-------|------------|-------------|----------|------------|--------|
| | | | Feed | Seed | Amount | Value |
| Tobacco | 4 | 3800 lbs. | | | 3800 lbs. | \$380 |
| Tomatoes | 4 | 520 bus. | | | 520 bus. | 208 |
| Strawberries (harvested) | 8 | 560 crates | | | 560 crates | 1680 |
| Strawberries (young) | 4 | | | | | |
| Corn, grain | 40 | 1400 bus. | 1393.6 bus. | 6.4 bus. | | |
| Corn, stover | 24 | 55200 lbs. | 55200 lbs. | | | |
| Corn, silage | 8 | 56 T. | 56 T. | | | |
| Wheat | 32 | 448 bus. | | | | |
| Mixed clover hay | 38 | 95000 lbs. | 95000 lbs. | 40 bus. | 408 bus. | 530 |
| Clover and grass | 106 | Pasture | Pasture | | | |
| Rye (pasture mixture) | 16 | Pasture | Pasture | | | |
| Rye (cover crop) | 4 | | | | | |
| Orchard and truck | 6 | | | | | |
| Lots | 16 | | | | | |
| Woodland | 24 | | | | | |
| Total | | | | | | \$2798 |

TABLE 23. Budget for suggested system 13 (300-acre farm—3 men, 7 horses) (Continued)
Section B. Crops: Man Labor, horse work and other requirements

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | |
|----------|----------|------------|------------------|-------|---|--|
| | | | Amount | Value | Kind | Amount |
| | | | | | | |
| Tobacco | 1000 | 360 | | | Fertilizer (5-9-4) Canvas Arsenate of lead Building expense Equipment expense | 1400 lbs. 27 yds. 16 lbs. 20 6 |
| Tomatoes | 640 | 480 | 8 oz. | \$2 | Superphosphate Canvas Equipment expense | 2000 lbs. 24 yds. 22 1 6 |

TABLE 23. Budget for suggested system 13 (300-acre farm—3 men, 7 horses) (Continued)
Section B. Crops: Man labor, horse work and other requirements (Continued)

| Crop | Man Hrs. | Horse Hrs. | Seeds and Plants | | Fertilizer and Other Materials | | |
|------------------------------------|-------------|---------------|---|-----------------------|--|---|---|
| | | | Amount | Value | Kind | Amount | Value |
| Strawberries | 1080 | 540 | 18000 plants | 63 | Superphosphate Straw Strawberry crates Contract picking Grading and crating Building expense Equipment expense | 800 lbs. 8 T. 560 crates 560 crates 4 12 | 9 Farm 190 448 112 4 12 |
| Corn | 1392 | 1632 | 5 bus. | Farm | Superphosphate Twine Equipment expense | 16000 lbs. 48 lbs. | 176 8 30 |
| Silage | 384 | 416 | 1.4 bus. | Farm | Superphosphate Filling costs Building expense Equipment expense | 3200 lbs. | 35 18 16 11 |
| Wheat | 480 | 704 | 40 bus. | Farm | Contract threshing Twine Equipment expense | 448 bus. 64 lbs. | 54 10 24 |
| Mixed clover hay ¹ | 410 | 450 | 96 lbs. Red clover 32 lbs. Alsike 96 lbs. Alfalfa 160 lbs. Orchard grass | \$29 8 22 29 | Limestone Equipment expense | 64 T. | 208 23 |
| Rye (Seeding) ² | 48 | 64 | 30 bus. Rye | 42 | | | |
| Pasture mixture (seeded in rye) | 16 | | 80 lbs. Japan clover 80 lbs. Orchard grass 48 lbs. Redtop 16 lbs. Sweet clover | 15 14 9 12 | | | |
| Total | 5482 | 4772 | | \$245 | Fertilizer and other materials Building expense Equipment expense | | \$1324 40 112 |

¹ Six acres harvested second year. Requirements for this acreage for harvesting only. ² Four acres cover crop and 16 acres for nurse crop and pasture, the latter seeded in standing corn.

TABLE 23. Budget for suggested system 13 (300-acre farm—3 men, 7 horses) (Continued)
Section C. Livestock: Number, and man labor, horse work, feed and material requirements

| Livestock | Num- ber | Man Hrs. | Horse Hrs. | Home Grown Feeds | | Purchased Feed and Other Expenses | | |
|---------------|-------------|-------------|---------------|---|---|---|---|---------------------------------|
| | | | | Kind | Amount | Kind | Amount | Value |
| Dairy cows | 22 | 3300 | 220 | Corn Legume hay Silage | 352 bus. 39600 lbs. 99000 lbs. | Cottonseed meal Building expense Equipment expense Miscellaneous | 4400 lbs. | \$97 66 33 55 |
| Veals | 15 | 75 | 15 | Whole milk | 7200 lbs. | | | |
| Dairy calves | 5 | 50 | 5 | Corn Whole milk Legume hay | 5 bus. 2400 lbs. 1000 lbs. | Bran and shorts Linseed meal Bldg. & miscl. expense | 150 lbs. 50 lbs. | 3 2 2 |
| Dairy heifers | 5 | 50 | 5 | Corn Legume hay Silage Corn stover | 10 bus. 1900 lbs. 7500 lbs. 1200 lbs. | Bran and shorts Building expense Miscellaneous | 500 lbs. | 9 2 1 |
| Sheep | 100 | 600 | 150 | Corn Legume hay | 112 bus. 32500 lbs. | Oats Building expense Miscellaneous | 75 bus. | 49 30 2 |
| Sows and pigs | 3 | 240 | 48 | Corn | 336 bus. | Tankage Equipment expense Miscellaneous | 960 lbs. | 37 5 7 |
| Poultry | 250 | 1000 | 75 | Corn | 295 bus. | Bran and shorts Meat scrap Baby chick feed Oyster shell Building expense Miscellaneous | 5000 lbs. 1250 lbs. 500 lbs. 1000 lbs. | 90 56 25 10 50 2 |
| Work stock | 7 | 315 | 35 | Corn Legume hay Corn stover | 280 bus. 20000 lbs. 10000 lbs. | Building expense Equipment expense Depreciation Miscellaneous | | 24 52 49 80 |
| Total | | 5630 | 553 | Corn Whole milk Legume hay Silage Corn stover | 1390 bus. 9600 lbs. 95000 lbs. 106500 lbs. 11200 lbs. | Feeds Building expense Equipment expense Depreciation on work stock Miscellaneous | | \$378 173 52 49 80 |

TABLE 23. Budget for suggested system 13 (300-acre farm—3 men, 7 horses) (Continued)
Section D. Livestock: Production and disposition of products

| Kind of Livestock and Product | Production | Fed to Livestock | Disposal | | | |
|-------------------------------|-------------|------------------|--------------|-------|------------|--------|
| | | | Used in Home | | Sales | |
| | | | Amount | Value | Amount | Value |
| Deiry cows | 110000 lbs. | 960 lbs. | (900 gal.) | \$163 | 92660 lbs. | \$1946 |
| Whole milk | 2100 lbs. | | 7740 lbs. | | 2100 lbs. | 168 |
| Veals | 5 cows | | | | 5 cows | 120 |
| Cull cows | | | | | | |
| Sheep, Lambs | 7000 lbs. | | | | 7000 lbs. | 700 |
| Old sheep | 1100 lbs. | | | | 1100 lbs. | 33 |
| Wool | 700 lbs. | | | | 700 lbs. | 252 |
| Pork | 4800 lbs. | | 1000 lbs. | 88 | 3800 lbs. | 332 |
| Poultry, Eggs | 2250 doz. | 125 doz. set | 350 doz. | 88 | 1775 doz. | 444 |
| Fryers | 1000 lbs. | | 250 lbs. | 65 | 750 lbs. | 195 |
| Hens | 1000 lbs. | | | | 1000 lbs. | 180 |
| Total | | | | \$404 | | \$4370 |

TABLE 23. Budget for suggested system 13 (300-acre farm--3 men, 7 horses) (Continued)
Section E. Summary of receipts and expenses

| Incomes | | Expenses | |
|--|--------|--------------------------------|--------|
| Crops | | Crops (Section B) | |
| Livestock and livestock products (Section D) | \$2798 | Seeds and plants | \$245 |
| Livestock products used in home (Section D) | 4370 | Fertilizer and other materials | 1324 |
| Garden and truck | 404 | Building expense | 40 |
| | 450 | Equipment expense | 112 |
| Total | \$8022 | | |
| | | Livestock (Section C) | |
| | | Feeds purchased | 378 |
| | | Building expense | 173 |
| | | Equipment expense | 52 |
| | | Depreciation on work stock | 49 |
| | | Miscellaneous | 80 |
| Net return \$5144 | | General Farm | 90 |
| | | Fence expense | 135 |
| | | Automobile expense | 200 |
| | | Labor | |
| | | Total | \$2878 |

